

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0120220510110022_02	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	2	Source Geological Domain	2
Approx. Source Tunnel Chainage From	131	Approx. Source Tunnel Chainage To	175
Approx. Rings From	58	Approx. Rings To	76
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	D01.01	Start of Filling From (Time / date)	28/04/2022
Tonnes Put in Holding Bay No:	9158.80	Finish of Filling (Time / Date)	01/05/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1: 108.11	Approx. Bank Cubic Meters (BCM)	8409.92

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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220501_08_17_SS_Primary_ALS
SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS
SX_IB_20220428_07_48_SS_Triplicate_EUF	SX_IB_20220429_08_13_SS_Triplicate_EUF	SX_IB_20220501_08_21_SS_Primary_EUF
SX_IB_20220428_07_57_SS_Primary_EUF	SX_IB_20220429_12_06_SS_Primary_EUF	SX_IB_20220501_08_21_SS_Triplicate_EUF
SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_IB_20220501_12_15_SS_Primary_ALS
SX_IB_20220428_11_49_SS_Primary_EUF	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220501_12_19_SS_Primary_EUF
SX_IB_20220428_15_54_SS_Primary_EUF	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220430_07_52_SS_Triplicate_EUF	SX_IB_20220501_16_12_SS_Primary_ALS
SX_IB_20220429_00_00_SS_Primary_EUF	SX_IB_20220430_07_55_SS_Primary_EUF	SX_IB_20220501_16_16_SS_Primary_EUF
SX_IB_20220429_00_02_SS_Duplicate_EUF	SX_IB_20220430_11_50_SS_Primary_EUF	SX_IB_20220501_16_18_SS_Primary_ALS
SX_IB_20220429_00_03_SS_Triplicate_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
SX_IB_20220429_04_06_SS_Primary_EUF	SX_IB_20220430_15_52_SS_Primary_ALS	SX_IB_20220501_19_56_SS_Primary_EUF
SX_IB_20220429_04_11_SS_Primary_ALS		
Total Sample Numbers	37	Ratio Acceptable
Primary Sample Numbers	27	Yes
Classified Volume (LCM)	4000 m³	Ratio used for categorisation of spoil is 148.15 Primary samples to LCM. (see Section 4)
Volume: Sample Number Ratio (Samples per LCM)	1: 108.11	

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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>	Yes
<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>	NA
<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>	NA
<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
<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?	Yes
B. Is IWRG 621.1 testing required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain?	Yes
C. Is IWRG 621.1 testing required for spoil in this Holding Bay, because the moving 95% UCL values for the previous 10 consecutive Holding Bays of spoil from this Domain are not below TCO?	No
D. Is testing pursuant to IWRG 655.1 required for spoil in this Holding Bay, because the spoil comes from Exception Zone 3 (See SAQP Section 5.4)?	No
E. Has spoil testing for IWRG 621.1 Parameters been triggered by results of spoil water tests for previous Holding Bays of spoil from this geological domain?	No
Outcome from IWRG 621.1 testing (if needed)	
F. If Yes to one or more Questions A, B, C or E, (and not NOC< applicable background concentrations) then do test results for IWRG 621.1 (see Table 3.4-2) prohibit NPIW Containment as a spoil Classification Outcome? If no to all of Questions A, B, C and E, then respond NA to this question.	No
Outcome from IWRG 655.1 testing (if needed)	
G. If Yes to Questions D, then do test results for IWRG 655.1 (see Table 3.4-3) permit NPIW Containment as a spoil Classification Outcome? If no to Question D, respond NA to this question	NA
Outcome from PFAS Testing	
H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome?	Yes
<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:	
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	37	27*	1 : 148.15	27	18	28.93	31.56	51	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	37	27*	1 : 148.15	27	123	202.4	220	310	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Fluoride	mg/kg	100	37	27*	1 : 148.15	23	110	318.3	354.3	650	450	NPIW-Containment

“*” - Ratio used for categorisation of spoil is Primary samples to LCM due to spoil 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	37	27*	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	37	27*	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	37	27*	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	37	27*	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	37	27*	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	37	27*	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	37	27*	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment

“*” - Ratio used for categorisation of spoil is Primary samples to LCM due to spoil 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</i> section 6.2 <i>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</i> section 6.3 <i>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 (Two soil and rock) and zinc (all units) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.</p> <p style="text-align: center;">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.	Test result outcomes can lead to two classification possibilities; however, the classification decision follows the preference of the waste management hierarchy.
3.	Spoil is 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.
4.	Loose Cubic metres (LCM) to mass (tonnes) conversion ratio used is 1 LCM:1.6 tonnes
5.	This report has been prepared in accordance with industry recognised standards and procedures current at the time of the work. The report presents the results of the assessment based on the quoted scope of works (unless otherwise agreed in writing) for the specific purposes of the engagement by the Client. No warranties expressed or implied, are offered to any third parties and no liability will be accepted for use of this report by third parties.
6.	All information provided by third parties has been assumed to be correct and complete. Agon does not assume any liability for misrepresentation of information by third parties or for matters not visible, accessible, or present on the subject site.
7.	Opinions and judgements expressed herein are based on Agon’s understanding of current regulatory standards and should not be construed as legal opinions. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties other than those listed above.
8.	This report should be read in full.

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5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

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ATTACHMENT A: TABULATED RESULTS

							Metals							
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF	M22-My0001937	30/04/2022	884270	MGT	Normal								
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF	M22-My0001957	30/04/2022	884270	MGT	Normal								
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	M22-My0001917	30/04/2022	884270	MGT	Normal	30	<0.4	79	120	<1	5.8	<0.1	<5
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	M22-My0001939	30/04/2022	884270	MGT	Normal								
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	M22-My0001959	30/04/2022	884270	MGT	Normal								
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	EM2207807004	30/04/2022	EM2207807	ALSE-Melbourne	Normal	20	<1	67	72	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	EM2207807031	30/04/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	EM2207807006	30/04/2022	EM2207807	ALSE-Melbourne	Normal	22	<1	54	85	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	EM2207807033	30/04/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	EM2207807014	1/05/2022	EM2207807	ALSE-Melbourne	Normal	27	<1	54	90	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	EM2207807039	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	EM2207807015	1/05/2022	EM2207807	ALSE-Melbourne	Field_D	23	<1	60	85	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	EM2207807040	1/05/2022	EM2207807	ALSE-Melbourne	Field_D								
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	M22-My0001925	1/05/2022	884270	MGT	Normal	35	<0.4	93	130	<1	7.1	<0.1	<5
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	M22-My0001945	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	M22-My0001965	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	M22-My0001926	1/05/2022	884270	MGT	Interlab_D	32	<0.4	84	120	<1	6.8	<0.1	<5
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	M22-My0001946	1/05/2022	884270	MGT	Interlab_D								
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	M22-My0001966	1/05/2022	884270	MGT	Interlab_D								
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	EM2207807016	1/05/2022	EM2207807	ALSE-Melbourne	Normal	20	<1	58	78	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	EM2207807041	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	M22-My0001928	1/05/2022	884270	MGT	Normal	25	<0.4	73	110	<1	5.3	<0.1	<5
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	M22-My0001948	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	M22-My0001968	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	EM2207807017	1/05/2022	EM2207807	ALSE-Melbourne	Normal	20	<1	56	76	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	EM2207807042	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	EM2207807019	1/05/2022	EM2207807	ALSE-Melbourne	Normal	18	<1	45	73	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	EM2207807044	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	M22-My0001929	1/05/2022	884270	MGT	Normal	38	<0.4	100	150	<1	10	<0.1	<5
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	M22-My0001949	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	M22-My0001969	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	EM2207807020	1/05/2022	EM2207807	ALSE-Melbourne	Normal	24	<1	49	79	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	EM2207807045	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	EM2207807022	1/05/2022	EM2207807	ALSE-Melbourne	Normal	21	<1	54	78	<1.0	<5	<0.1	<5
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	EM2207807047	1/05/2022	EM2207807	ALSE-Melbourne	Normal								
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	M22-My0001932	1/05/2022	884270	MGT	Normal	34	<0.4	86	140	<1	7.8	<0.1	<5
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	M22-My0001952	1/05/2022	884270	MGT	Normal								
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	M22-My0001972	1/05/2022	884270	MGT	Normal								

		PAH																				
		Nickel	Selenium	Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b,f,h,i)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,f,h,i)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	DiBenzo(a,h)anthracene	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																					
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	220	<2	<2	<10	160		<0.5	<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
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	187	<5	<2	<10	147	<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
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																					
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	155	<5	<2	<10	111	<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
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	163	<5	<2	<10	119	<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
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	153	<5	<2	<10	122	<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
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																					
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	240	<2	<2	<10	190		<0.5	<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
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	260	<2	<2	<10	200		<0.5	<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
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	167	<5	<2	<10	107	<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
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																					
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	260	<2	<2	<10	170		<0.5	<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
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																					
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																					
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	142	<5	<2	<10	103	<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
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																					
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	123	<5	<2	<10	80	<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
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																					
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	260	2.1	<2	<10	200		<0.5	<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
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																					
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																					
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	132	<5	<2	<10	97	<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
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																					
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	140	<5	<2	<10	97	<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
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																					
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	230	<2	<2	<10	170		<0.5	<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
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																					
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																					

		BTEX											TRH								
		Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																				
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																				
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																				
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																				
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																				
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																				
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																				
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																				
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																				
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																				
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																				
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																				
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																				
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																				

		TPH					Organochlorine Pesticides															
		C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	Chlordane	Chlordane (cis)	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																					
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																					
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																					
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																					
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																					
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																					
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																					
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																					
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																					
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																					
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																					
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																					
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																					
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<20	<50	<100	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.03	
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																					
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1		
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																					
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																					

		Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	p-BHC	p-BHC	p-BHC	p-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVc	Other organochlorine pesticides EPAVc	p-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol	2,3,4,5 & 2,3,4,6-Tetrachlorophenol
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																				
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																				
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																				
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																				
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																				
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																				
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																				
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																				
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																				
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																				
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																				
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																				
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																				
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																				
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																				

		Phenols															10:2 Fluorotelomer sulfonic acid (10:2 FTS)		8:2 Fluorotelomer sulfonic		
		4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	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	mg/kg	mg/kg			
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																		<0.00005		<0.00005
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																		<0.00001		<0.00001
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																		<0.00001		<0.00001

D01.01	SX_IB_20220430_07_55_SS_Primary_EUF	mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		mg/kg	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	Chlorinated I		
			mg/L	mg/kg																		mg/L	mg/kg
			mg/L	mg/kg																		mg/L	mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF	<0.00001	<0.00001	<0.0001																			
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	<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	<0.5		
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	<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	<0.5		
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<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	<0.5		
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	<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	<0.5		
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	<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	<0.5		
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS		<0.00010	<0.0500	<0.50				<0.50				<0.50		<0.50	<0.50	<0.50						
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	<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	<0.5		
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF		<0.00001	<0.0001																			
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF		<0.00001	<0.0001																			

hydrocarbons		NA														Sum of WA DWER PFAS (n=10)*		Moisture Content	Arochlor 1232	Arochlor 1242
Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVc	Trichloroethene	Chlorinated hydrocarbons EPAVc	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	UG/KG	µg/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	mg/kg	mg/kg						
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220430_11_50_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	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220430_11_51_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	29.9			
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			<0.50	<0.50	<10.0	<0.05	30.5			
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_08_17_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	31.9			
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_08_20_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	32.8			
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS														<0.05					
D01.01	SX_IB_20220501_08_21_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	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_08_21_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	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF														<0.05					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF														<0.05					
D01.01	SX_IB_20220501_12_15_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	33.3			
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_12_19_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	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_12_21_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	32.3			
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			<0.50	<0.50	<10.0	<0.05	30.0			
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_16_16_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	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_16_18_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			
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			<0.50	<0.50	<10.0	<0.05	30.6			
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS														<0.05					
D01.01	SX_IB_20220501_19_56_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	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF														<0.05					
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF														<0.05					

		PCBs					Inorganics							Halogenated Benzenes							
		Arochlor 1248 mg/kg	Arochlor 1254 mg/kg	Arochlor 1221 mg/kg	Arochlor 1260 mg/kg	Arochlor 1016 mg/kg	PCBs (Sum of total) mg/kg	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride mg/kg	Moisture Content (dried @ 103°C) %	Cyanide Total mg/kg	1,2,4-trichlorobenzene mg/kg	1,2-dichlorobenzene mg/kg	1,3-dichlorobenzene mg/kg	1,4-dichlorobenzene mg/kg	Bromobenzene mg/kg	4-chlorotoluene mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF							-	-	-	-	-	-	-							
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF								5.0												
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF								5.0												
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF								8.7												
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS						<0.1	1.5	5.3	9.1	5.0	240		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS								10.2												
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS						<0.1	1.5	5.3	10.0	5.0	320		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS								10.2												
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS						<0.1	1.4	5.2	9.9	5.0	280		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS								10.1												
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS						<0.1	1.6	5.2	9.6	5.0	200		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS								10.2												
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF								5.0												
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF								8.8												
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF								5.0												
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF								9.6												
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS						<0.1	1.5	5.2	9.8	5.0	190		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS								10.2												
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF								5.3												
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF								9.6												
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS						<0.1	1.5	5.3	9.8	5.0	240		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS								10.3												
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS						<0.1	1.5	5.2	10.0	5.0	220		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS								10.3												
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF								5.2												
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF								9.6												
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS						<0.1	1.5	5.3	10.0	5.0	<100		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS								10.3												
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS						<0.1	1.5	5.2	9.9	5.0	210		<5	<0.50	<0.50			<0.50		
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS								10.2												
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1														
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF								5.4												
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF								9.4												

		Halogenated Hydrocarbons					MAH					Solvents					SPOCAS	
		Chlorobenzene mg/kg	Iodomethane mg/kg	Bromomethane mg/kg	1,2-dibromoethane mg/kg	Dichlorodifluoromethane mg/kg	Trichlorofluoromethane mg/kg	Total MAH mg/kg	Monocyclic aromatic hydrocarbons EPAVc mg/kg	1,3,5-trimethylbenzene mg/kg	Styrene mg/kg	Isopropylbenzene mg/kg	1,2,4-trimethylbenzene mg/kg	4-Methyl-2-pentanone mg/kg	Acetone mg/kg	Allyl chloride mg/kg	Carbon disulfide mg/kg	Methyl Ethyl Ketone mg/kg
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																	
D01.01	SX_IB_20220430_07_55_SS_Primary_EUF																	
D01.01	SX_IB_20220430_11_50_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	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																	
D01.01	SX_IB_20220430_11_50_SS_Primary_EUF																	
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS	<0.50							<0.5	<0.5								8.7
D01.01	SX_IB_20220430_11_51_SS_Primary_ALS																	
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS	<0.50							<0.5	<0.5								8.8
D01.01	SX_IB_20220430_15_52_SS_Primary_ALS																	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.50							<0.5	<0.5								8.6
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.50							<0.5	<0.5								8.6
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																	
D01.01	SX_IB_20220501_08_21_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	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																	
D01.01	SX_IB_20220501_08_21_SS_Primary_EUF																	
D01.01	SX_IB_20220501_08_21_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	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																	
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS	<0.50							<0.5	<0.5								8.8
D01.01	SX_IB_20220501_12_15_SS_Primary_ALS																	
D01.01	SX_IB_20220501_12_19_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	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																	
D01.01	SX_IB_20220501_12_19_SS_Primary_EUF																	
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS	<0.50							<0.5	<0.5								8.8
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																	
D01.01	SX_IB_20220501_12_21_SS_Primary_ALS																	
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS	<0.50							<0.5	<0.5								8.9
D01.01	SX_IB_20220501_16_12_SS_Primary_ALS																	
D01.01	SX_IB_20220501_16_16_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	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																	
D01.01	SX_IB_20220501_16_16_SS_Primary_EUF																	
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS	<0.50							<0.5	<0.5								8.9
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																	
D01.01	SX_IB_20220501_16_18_SS_Primary_ALS																	
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS	<0.50							<0.5	<0.5								8.7
D01.01	SX_IB_20220501_19_49_SS_Primary_ALS																	
D01.01	SX_IB_20220501_19_56_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	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																	
D01.01	SX_IB_20220501_19_56_SS_Primary_EUF																	

							Metals										
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							2	0.4	5	5	1	5	0.1	5	5	2	2
Location Code	Field ID	Date	Lab Report Number	Lab Name	Sample Type	Parent Sample											
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Normal		38	1	75	92	<1.0	<5	<0.1	<5	173	<5	<2
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Field_D	EM2207664001	42	1	81	92	<1.0	<5	<0.1	<5	171	<5	<2
RPD							10	0	8	0	0	0	0	0	1	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Normal		38	1	75	92	<1.0	<5	<0.1	<5	173	<5	<2
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF	28/04/2022	883770	MGT	Interlab_D	EM2207664001	35	<0.4	81	110	<1	5.1	<0.1	<5	230	<2	<2
RPD							8	86	8	18	0	2	0	0	28	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Normal		38	1	75	92	<1.0	<5	<0.1	<5	173	<5	<2
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF	28/04/2022	883770	MGT	Interlab_D	EM2207664001											
RPD																	
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Normal												
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Field_D	EM2207664014											
RPD																	
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS	28/04/2022	EM2207664	ALSE-Melbourne	Normal												
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF	28/04/2022	883770	MGT	Interlab_D	EM2207664014											
RPD																	
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	29/04/2022	883770	MGT	Normal		25	<0.4	60	110	<1	<5	<0.1	<5	160	<2	<2
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF	29/04/2022	883770	MGT	Field_D	M22-Ap0058982	32	<0.4	62	120	<1	<5	<0.1	<5	180	<2	<2
RPD							25	0	3	9	0	0	0	0	12	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	29/04/2022	883770	MGT	Normal		25	<0.4	60	110	<1	<5	<0.1	<5	160	<2	<2
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS	29/04/2022	EM2207664	ALSE-Melbourne	Interlab_D	M22-Ap0058982	25	<1	69	106	<1.0	<5	<0.1	<5	175	<5	<2
RPD							0	0	14	4	0	0	0	0	9	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	29/04/2022	883770	MGT	Normal												
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF	29/04/2022	883770	MGT	Field_D	M22-Ap0058989											
RPD																	
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	29/04/2022	883770	MGT	Normal												
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS	29/04/2022	EM2207664	ALSE-Melbourne	Interlab_D	M22-Ap0058996											
RPD																	
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	29/04/2022	884110	MGT	Normal		55	<0.4	74	160	<1	6.5	<0.1	<5	240	<2	<2
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF	29/04/2022	884110	MGT	Field_D	M22-My0000813	59	<0.4	73	150	<1	7.4	<0.1	<5	230	<2	<2
RPD							7	0	1	6	0	13	0	0	4	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	29/04/2022	884110	MGT	Normal		55	<0.4	74	160	<1	6.5	<0.1	<5	240	<2	<2
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS	29/04/2022	EM2207719	ALSE-Melbourne	Interlab_D	M22-My0000813	38	<1	58	98	<1.0	<5	<0.1	<5	175	<5	<2
RPD							37	0	24	48	0	26	0	0	31	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	29/04/2022	884110	MGT	Normal												
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF	29/04/2022	884110	MGT	Field_D	M22-My0000822											
RPD																	
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	29/04/2022	884110	MGT	Normal												
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF	29/04/2022	884110	MGT	Field_D	M22-My0000829											
RPD																	
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	29/04/2022	884110	MGT	Normal												
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS	29/04/2022	EM2207719	ALSE-Melbourne	Interlab_D	M22-My0000829											
RPD																	
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS	29/04/2022	EM2207664	ALSE-Melbourne	Normal		27	<1	66	103	<1.0	<5	<0.1	<5	152	<5	<2
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS	29/04/2022	EM2207719	ALSE-Melbourne	Field_D	EM2207664013	21	<1	61	78	<1.0	<5	<0.1	<5	158	<5	<2
RPD							25	0	8	28	0	0	0	0	4	0	0
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS	29/04/2022	EM2207664	ALSE-Melbourne	Normal												
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS	29/04/2022	EM2207719	ALSE-Melbourne	Field_D	EM2207664019											
RPD																	
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	30/04/2022	884270	MGT	Normal		21	<0.4	98	170	<1	<5	<0.1	<5	280	<2	<2
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF	30/04/2022	884270	MGT	Field_D	M22-My0001918	21	<0.4	95	170	<1	<5	<0.1	<5	270	<2	<2
RPD							0	0	3	0	0	0	0	0	4	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	30/04/2022	884270	MGT	Normal		21	<0.4	98	170	<1	<5	<0.1	<5	280	<2	<2
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Interlab_D	M22-My0001918	12	<1	67	115	<1.0	<5	<0.1	<5	173	<5	<2
RPD							55	0	38	39	0	0	0	0	47	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	30/04/2022	884270	MGT	Normal												
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF	30/04/2022	884270	MGT	Field_D	M22-My0001940											
RPD																	
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	30/04/2022	884270	MGT	Normal												
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF	30/04/2022	884270	MGT	Field_D	M22-My0001960											

							Metals											
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
RPD																		
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	30/04/2022	884270	MGT	Normal													
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Interlab_D	M22-My0001960												
RPD																		
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Normal		20	<1	65	80	<1.0	<5	<0.1	<5	183	<5	<2	
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Field_D	EM2207807001	22	<1	59	82	<1.0	<5	<0.1	<5	167	<5	<2	
RPD							10	0	10	2	0	0	0	0	9	0	0	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Normal		20	<1	65	80	<1.0	<5	<0.1	<5	183	<5	<2	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	30/04/2022	884270	MGT	Interlab_D	EM2207807001	29	<0.4	70	110	<1	6.1	<0.1	<5	220	<2	<2	
RPD							37	0	7	32	0	20	0	0	18	0	0	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Normal		20	<1	65	80	<1.0	<5	<0.1	<5	183	<5	<2	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	30/04/2022	884270	MGT	Interlab_D	EM2207807001												
RPD																		
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Normal													
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Field_D	EM2207807028												
RPD																		
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	30/04/2022	EM2207807	ALSE-Melbourne	Normal													
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	30/04/2022	884270	MGT	Interlab_D	EM2207807028												
RPD																		
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/2022	884270	MGT	Normal		19	<0.4	80	160	<1	<5	<0.1	<5	220	<2	<2	
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	1/05/2022	884270	MGT	Field_D	M22-My0001930	33	<0.4	180	300	<1	8.2	<0.1	5.2	490	2.1	<2	
RPD							54	0	77	61	0	48	0	4	76	5	0	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/2022	884270	MGT	Normal		19	<0.4	80	160	<1	<5	<0.1	<5	220	<2	<2	
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Interlab_D	M22-My0001930	14	<1	66	116	<1.0	<5	<0.1	<5	172	<5	<2	
RPD							30	0	19	32	0	0	0	0	24	0	0	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/2022	884270	MGT	Normal													
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	1/05/2022	884270	MGT	Field_D	M22-My0001950												
RPD																		
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/2022	884270	MGT	Normal													
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	1/05/2022	884270	MGT	Field_D	M22-My0001970												
RPD																		
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/2022	884270	MGT	Normal													
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Interlab_D	M22-My0001970												
RPD																		
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Normal		27	<1	54	90	<1.0	<5	<0.1	<5	163	<5	<2	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Field_D	EM2207807014	23	<1	60	85	<1.0	<5	<0.1	<5	153	<5	<2	
RPD							16	0	11	6	0	0	0	0	6	0	0	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Normal		27	<1	54	90	<1.0	<5	<0.1	<5	163	<5	<2	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	1/05/2022	884270	MGT	Interlab_D	EM2207807014	32	<0.4	84	120	<1	6.8	<0.1	<5	260	<2	<2	
RPD							17	0	43	29	0	31	0	0	46	0	0	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Normal		27	<1	54	90	<1.0	<5	<0.1	<5	163	<5	<2	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	1/05/2022	884270	MGT	Interlab_D	EM2207807014												
RPD																		
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Normal													
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Field_D	EM2207807039												
RPD																		
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	1/05/2022	EM2207807	ALSE-Melbourne	Normal													
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	1/05/2022	884270	MGT	Interlab_D	EM2207807039												
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																				
		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	Naphthalene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD																						
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																					
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<10	145	<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
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	<10	118	<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
RPD		0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<10	145	<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
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<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	<0.5
RPD		0	3			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<10	145	<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
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																					
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																					
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																					
RPD																						
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<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	<0.5
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<10	290			<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
RPD		0	70			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<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	<0.5
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	<10	101	<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
RPD		0	32			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																					
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																					
RPD																						
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																					
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<10	119	<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
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<10	122	<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
RPD		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<10	119	<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
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<10	200			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	51			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<10	119	<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
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

		BTEX								TRH							TPH					
		Phenanthrene	Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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																						
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																					
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																					
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																					
RPD																						
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																					
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																					
RPD																						
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	<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
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																					
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																					
RPD																						
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																					
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																					
RPD																						
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																					
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																					
RPD																						
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																					
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

		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	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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																							
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_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	
D01.01	SX_IB_20220430_07_51_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	
RPD		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	
D01.01	SX_IB_20220430_07_47_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	
D01.01	SX_IB_20220430_07_52_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	
RPD		0	0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0	0	
D01.01	SX_IB_20220430_07_47_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	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_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	
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<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	
C07.02	SX_OB_20220501_16_22_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	
C07.02	SX_OB_20220501_16_24_SS_Triplicate_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	<0.05	<0.10	<0.03	<0.03	<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	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_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	
D01.01	SX_IB_20220501_08_20_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	
RPD		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	
D01.01	SX_IB_20220501_08_17_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	
D01.01	SX_IB_20220501_08_21_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	
RPD		0	0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0	0	
D01.01	SX_IB_20220501_08_17_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	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

Phenols

		d-BHC	γ-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVc	Other organochlorine pesticides EPAVc	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) EPAVc	Phenols (non-halogenated) EPAVc	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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																							
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	0	0		0		0	0	0	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	<1.00	<20	
RPD		0	0	0		0	0	0	0	0	0	0	0	0		0				0			
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0		0	0		0	0			
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
RPD		0	0	0		0	0	0	0	0	0	0	0	0		0				0			
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	0	0		0		0	0	0	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	<1.00	<20	
RPD		0	0	0		0	0	0	0	0	0	0	0	0		0				0			
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

(PFTDA)	Perfluoroundecanoic acid (PFUnDA)		Perfluorooctanesulfonic acid (PFOS)		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		Sum of PFAS		1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	
	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/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.0001	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID																						
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS																						
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS																						
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS																						
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS																						
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS																						
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF																						
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF																						
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF																						
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF																						
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF																						
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF																						
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF																						
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF																						
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS																						
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS																						
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF																						
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF																						

		Chlorinated Hydrocarbons																					
		Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons 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	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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																							
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																						
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
RPD			0		0	0	0				0	0	0	0	0	0	0		0		0	0	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD			0		0	0	0				0	0	0	0	0	0	0		0		0	0	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																						
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD			0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
RPD			0		0	0	0				0	0	0	0	0	0	0		0		0	0	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																						
RPD																							
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																						
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
RPD			0		0	0	0				0	0	0	0	0	0	0		0		0	0	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD			0		0	0	0				0	0	0	0	0	0	0		0		0	0	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS		<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																						
RPD																							
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																						
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																						
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labs

		NA					PCBs							Inorganics						
	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride	Moisture Content (dried @ 103°C)
	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg	%
RPD				0											7		0			
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF			<0.05											9.4		6.2			
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS			<0.05											9.6					
RPD															2					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	29.4							<0.1	1.6	5.2	9.6	5.0		220	
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	<0.50	<0.50	<10.0	<0.05	30.6							<0.1	1.5	5.2	9.7	5.0		240	
RPD		0	0	0	0	4							0	6	0	1	0		9	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	29.4							<0.1	1.6	5.2	9.6	5.0		220	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<0.5	<0.5	<10	<0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.4	430	32
RPD		0	0	0									0						65	
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	29.4							<0.1	1.6	5.2	9.6	5.0		220	
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF			<0.05											6.4		5.1			
RPD				0											21		2			
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS			<0.05											10.3					
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS			<0.05											10.3					
RPD				0											0					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS			<0.05											10.3					
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF			<0.05											5.0		6.2			
RPD															69					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	150	30
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	<100	28
RPD		0	0	0	0		0	0	0	0	0	0	0					0	40	7
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	150	30
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	<0.50	<0.50	<10.0	<0.05	28.4							<0.1	1.5	5.2	9.2	5.0		170	
RPD		0	0	0									0						12	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF			<0.05											5.2		5.0			
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF			<0.05											5.1		5.0			
RPD				0											2		0			
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF			<0.05											9.1		7.1			
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF			<0.05											8.9		7.1			
RPD				0											2		0			
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF			<0.05											9.1		7.1			
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS			<0.05											9.5					
RPD															4					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	31.9							<0.1	1.4	5.2	9.9	5.0		280	
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<0.50	<0.50	<10.0	<0.05	32.8							<0.1	1.6	5.2	9.6	5.0		200	
RPD		0	0	0	0	3							0	13	0	3	0		33	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	31.9							<0.1	1.4	5.2	9.9	5.0		280	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.5	<0.5	<10	<0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					9.4	130	33
RPD		0	0	0									0						73	
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<0.50	<0.50	<10.0	<0.05	31.9							<0.1	1.4	5.2	9.9	5.0		280	
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF			<0.05											5.0		5.1			
RPD				0											4		2			
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS			<0.05											10.1					
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS			<0.05											10.2					
RPD				0											1					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS			<0.05											10.1					
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF			<0.05											9.6		6.2			
RPD															5					

*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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

	Cyanide Total	Halogenated Benzenes							Halogenated Hydrocarbons					MAH							
		1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RPD																					
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF																				
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS																				
RPD																					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<5	<0.50	<0.50	<0.50			<0.50							<0.5		<0.5				
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS	<5	<0.50	<0.50	<0.50			<0.50							<0.5		<0.5				
RPD		0	0	0	0			0							0		0				
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<5	<0.50	<0.50	<0.50			<0.50							<0.5		<0.5				
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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				
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS	<5	<0.50	<0.50	<0.50			<0.50							<0.5		<0.5				
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																				
RPD																					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																				
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS																				
RPD																					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS																				
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF																				
RPD																					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS	<5	<0.50	<0.50	<0.50	<0.50		<0.50							<0.5		<0.5				
RPD		0	0	0	0			0									0				
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																				
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																				
RPD																					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																				
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF																				
RPD																					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF																				
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS																				
RPD																					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<5	<0.50	<0.50				<0.50							<0.5		<0.5				
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS	<5	<0.50	<0.50				<0.50							<0.5		<0.5				
RPD		0	0	0	0			0							0		0				
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<5	<0.50	<0.50				<0.50							<0.5		<0.5				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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				
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS	<5	<0.50	<0.50				<0.50							<0.5		<0.5				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
RPD																					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS																				
RPD																					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS																				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF																				
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)
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labs

	Solvents			SPOCAS
	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	-
EQL	0.5	0.5	0.5	0.1

Location Code	Field ID				
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS				7.4
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS				7.8
RPD					5
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS				7.4
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF	<0.5	<0.5	<0.5	
RPD					
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS				7.4
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF				
RPD					
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS				
D01.01	SX_IB_20220428_07_47_SS_Duplicate_ALS				
RPD					
D01.01	SX_IB_20220428_07_45_SS_Primary_ALS				
D01.01	SX_IB_20220428_07_48_SS_Triplicate_EUF				
RPD					
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	<0.5	<0.5	<0.5	
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF	<0.5	<0.5	<0.5	
RPD		0	0	0	
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF	<0.5	<0.5	<0.5	
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS				8.0
RPD					
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF				
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF				
RPD					
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF				
D01.01	SX_IB_20220429_00_02_SS_Duplicate_EUF				
RPD					
D01.01	SX_IB_20220429_00_00_SS_Primary_EUF				
D01.01	SX_IB_20220429_00_03_SS_Triplicate_ALS				
RPD					
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	<0.5	<0.5	<0.5	
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF	<0.5	<0.5	<0.5	
RPD		0	0	0	
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF	<0.5	<0.5	<0.5	
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS				7.6
RPD					
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF				
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF				
RPD					
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF				
A04.02	SX_OB_20220429_16_13_SS_Duplicate_EUF				
RPD					
A04.02	SX_OB_20220429_16_11_SS_Primary_EUF				
A04.02	SX_OB_20220429_16_14_SS_Triplicate_ALS				
RPD					
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS				8.5
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS				8.8
RPD					3
D01.01	SX_IB_20220429_04_11_SS_Primary_ALS				
D01.01	SX_IB_20220429_08_12_SS_Duplicate_ALS				
RPD					
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF	<0.5	<0.5	<0.5	
RPD		0	0	0	
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS				7.8
RPD					
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF				
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF				
RPD					
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF				
C07.02	SX_OB_20220430_15_58_SS_Duplicate_EUF				

		Solvents			SPOCAS
		Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	mg/kg	mg/kg	-
RPD					
C07.02	SX_OB_20220430_15_58_SS_Primary_EUF				
C07.02	SX_OB_20220430_15_58_SS_Triplicate_ALS				
RPD					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS				8.9
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS				8.9
RPD					0
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS				8.9
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF	<0.5	<0.5	<0.5	
RPD					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS				8.9
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF				
RPD					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS				
D01.01	SX_IB_20220430_07_51_SS_Duplicate_ALS				
RPD					
D01.01	SX_IB_20220430_07_47_SS_Primary_ALS				
D01.01	SX_IB_20220430_07_52_SS_Triplicate_EUF				
RPD					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF	<0.5	<0.5	<0.5	
RPD		0	0	0	
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF	<0.5	<0.5	<0.5	
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS				7.5
RPD					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF				
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF				
RPD					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF				
C07.02	SX_OB_20220501_16_23_SS_Duplicate_EUF				
RPD					
C07.02	SX_OB_20220501_16_22_SS_Primary_EUF				
C07.02	SX_OB_20220501_16_24_SS_Triplicate_ALS				
RPD					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS				8.6
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS				8.6
RPD					0
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS				8.6
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF	<0.5	<0.5	<0.5	
RPD					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS				8.6
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF				
RPD					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS				
D01.01	SX_IB_20220501_08_20_SS_Duplicate_ALS				
RPD					
D01.01	SX_IB_20220501_08_17_SS_Primary_ALS				
D01.01	SX_IB_20220501_08_21_SS_Triplicate_EUF				
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
 ***Interlab Duplicates are matched on a per compound basis as methods vary between labo

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0120220510110022_02	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 Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.110/05/2022 1:19:50 PM								
5	From File			WorkSheet_a.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				27		Number of Distinct Observations				18	
15							Number of Missing Observations				0	
16	Minimum				18		Mean				28.93	
17	Maximum				51		Median				28	
18	SD				8.028		Std. Error of Mean				1.545	
19	Coefficient of Variation				0.278		Skewness				0.924	
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic				0.934		Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value				0.923		Data appear Normal at 5% Significance Level					
24	Lilliefors Test Statistic				0.113		Lilliefors GOF Test					
25	5% Lilliefors Critical Value				0.167		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				31.56		95% Adjusted-CLT UCL (Chen-1995)				31.76	
31							95% Modified-t UCL (Johnson-1978)				31.61	
32												
33	Gamma GOF Test											
34	A-D Test Statistic				0.283		Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value				0.744		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic				0.0829		Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value				0.168		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)				14.58		k star (bias corrected MLE)				12.98	
42	Theta hat (MLE)				1.984		Theta star (bias corrected MLE)				2.228	
43	nu hat (MLE)				787.2		nu star (bias corrected)				701.1	
44	MLE Mean (bias corrected)				28.93		MLE Sd (bias corrected)				8.028	
45							Approximate Chi Square Value (0.05)				640.6	
46	Adjusted Level of Significance				0.0401		Adjusted Chi Square Value				636.9	
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL (use when n>=50))				31.65		95% Adjusted Gamma UCL (use when n<50)				31.84	
50												
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic				0.973		Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value				0.923		Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic				0.0814		Lilliefors Lognormal GOF Test					

	A	B	C	D	E	F	G	H	I	J	K	L
55	5% Lilliefors Critical Value					0.167	Data appear Lognormal at 5% Significance Level					
56	Data appear Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data					2.89	Mean of logged Data					3.33
60	Maximum of Logged Data					3.932	SD of logged Data					0.265
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL					31.78	90% Chebyshev (MVUE) UCL					33.38
64	95% Chebyshev (MVUE) UCL					35.41	97.5% Chebyshev (MVUE) UCL					38.23
65	99% Chebyshev (MVUE) UCL					43.76						
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					31.47	95% Jackknife UCL					31.56
72	95% Standard Bootstrap UCL					31.39	95% Bootstrap-t UCL					32.01
73	95% Hall's Bootstrap UCL					31.96	95% Percentile Bootstrap UCL					31.48
74	95% BCA Bootstrap UCL					31.67						
75	90% Chebyshev(Mean, Sd) UCL					33.56	95% Chebyshev(Mean, Sd) UCL					35.66
76	97.5% Chebyshev(Mean, Sd) UCL					38.57	99% Chebyshev(Mean, Sd) UCL					44.3
77												
78	Suggested UCL to Use											
79	95% Student's-t UCL					31.56						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												
86												
87	Nickel											
88												
89	General Statistics											
90	Total Number of Observations					27	Number of Distinct Observations					19
91							Number of Missing Observations					0
92	Minimum					123	Mean					202.4
93	Maximum					310	Median					187
94	SD					53.37	Std. Error of Mean					10.27
95	Coefficient of Variation					0.264	Skewness					0.337
96												
97	Normal GOF Test											
98	Shapiro Wilk Test Statistic					0.932	Shapiro Wilk GOF Test					
99	5% Shapiro Wilk Critical Value					0.923	Data appear Normal at 5% Significance Level					
100	Lilliefors Test Statistic					0.173	Lilliefors GOF Test					
101	5% Lilliefors Critical Value					0.167	Data Not Normal at 5% Significance Level					
102	Data appear Approximate 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					220	95% Adjusted-CLT UCL (Chen-1995)					220.1
107							95% Modified-t UCL (Johnson-1978)					220.1
108												

	A	B	C	D	E	F	G	H	I	J	K	L
109	Gamma GOF Test											
110	A-D Test Statistic				0.725		Anderson-Darling Gamma GOF Test					
111	5% A-D Critical Value				0.744		Detected data appear Gamma Distributed at 5% Significance Level					
112	K-S Test Statistic				0.16		Kolmogorov-Smirnov Gamma GOF Test					
113	5% K-S Critical Value				0.168		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)				15.05		k star (bias corrected MLE)				13.4	
118	Theta hat (MLE)				13.45		Theta star (bias corrected MLE)				15.11	
119	nu hat (MLE)				812.6		nu star (bias corrected)				723.6	
120	MLE Mean (bias corrected)				202.4		MLE Sd (bias corrected)				55.3	
121							Approximate Chi Square Value (0.05)				662.2	
122	Adjusted Level of Significance				0.0401		Adjusted Chi Square Value				658.5	
123												
124	Assuming Gamma Distribution											
125	95% Approximate Gamma UCL (use when n>=50))				221.2		95% Adjusted Gamma UCL (use when n<50)				222.5	
126												
127	Lognormal GOF Test											
128	Shapiro Wilk Test Statistic				0.941		Shapiro Wilk Lognormal GOF Test					
129	5% Shapiro Wilk Critical Value				0.923		Data appear Lognormal at 5% Significance Level					
130	Lilliefors Test Statistic				0.152		Lilliefors Lognormal GOF Test					
131	5% Lilliefors Critical Value				0.167		Data appear Lognormal at 5% Significance Level					
132	Data appear Lognormal at 5% Significance Level											
133												
134	Lognormal Statistics											
135	Minimum of Logged Data				4.812		Mean of logged Data				5.277	
136	Maximum of Logged Data				5.737		SD of logged Data				0.265	
137												
138	Assuming Lognormal Distribution											
139	95% H-UCL		222.6		90% Chebyshev (MVUE) UCL				233.8			
140	95% Chebyshev (MVUE) UCL		248		97.5% Chebyshev (MVUE) UCL				267.7			
141	99% Chebyshev (MVUE) UCL		306.4									
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		219.3		95% Jackknife UCL				220			
148	95% Standard Bootstrap UCL		219.5		95% Bootstrap-t UCL				221.6			
149	95% Hall's Bootstrap UCL		219.9		95% Percentile Bootstrap UCL				218.1			
150	95% BCA Bootstrap UCL		219.6									
151	90% Chebyshev(Mean, Sd) UCL				233.3		95% Chebyshev(Mean, Sd) UCL				247.2	
152	97.5% Chebyshev(Mean, Sd) UCL				266.6		99% Chebyshev(Mean, Sd) UCL				304.6	
153												
154	Suggested UCL to Use											
155	95% Student's-t UCL		220									
156												
157	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
158	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
159												
160	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
161	Recommendations are based upon data size, data distribution, and skewness.											
162	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											

	A	B	C	D	E	F	G	H	I	J	K	L
163	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
164												
165	Fluoride											
166												
167	General Statistics											
168	Total Number of Observations				27		Number of Distinct Observations				20	
169	Number of Detects				23		Number of Non-Detects				4	
170	Number of Distinct Detects				19		Number of Distinct Non-Detects				1	
171	Minimum Detect				110		Minimum Non-Detect				100	
172	Maximum Detect				650		Maximum Non-Detect				100	
173	Variance Detects				25179		Percent Non-Detects				14.81%	
174	Mean Detects				318.3		SD Detects				158.7	
175	Median Detects				240		CV Detects				0.499	
176	Skewness Detects				0.761		Kurtosis Detects				-0.637	
177	Mean of Logged Detects				5.646		SD of Logged Detects				0.495	
178												
179	Normal GOF Test on Detects Only											
180	Shapiro Wilk Test Statistic				0.901		Shapiro Wilk GOF Test					
181	5% Shapiro Wilk Critical Value				0.914		Detected Data Not Normal at 5% Significance Level					
182	Lilliefors Test Statistic				0.211		Lilliefors GOF Test					
183	5% Lilliefors Critical Value				0.18		Detected Data Not Normal at 5% Significance Level					
184	Detected Data Not Normal at 5% Significance Level											
185												
186	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
187	KM Mean		285.9		KM Standard Error of Mean				32.05			
188	KM SD		162.9		95% KM (BCA) UCL				342.6			
189	95% KM (t) UCL		340.6		95% KM (Percentile Bootstrap) UCL				338.9			
190	95% KM (z) UCL		338.6		95% KM Bootstrap t UCL				345.7			
191	90% KM Chebyshev UCL		382.1		95% KM Chebyshev UCL				425.6			
192	97.5% KM Chebyshev UCL		486.1		99% KM Chebyshev UCL				604.8			
193												
194	Gamma GOF Tests on Detected Observations Only											
195	A-D Test Statistic		0.531		Anderson-Darling GOF Test							
196	5% A-D Critical Value		0.748		Detected data appear Gamma Distributed at 5% Significance Level							
197	K-S Test Statistic		0.18		Kolmogorov-Smirnov GOF							
198	5% K-S Critical Value		0.182		Detected data appear Gamma Distributed at 5% Significance Level							
199	Detected data appear Gamma Distributed at 5% Significance Level											
200												
201	Gamma Statistics on Detected Data Only											
202	k hat (MLE)		4.452		k star (bias corrected MLE)				3.9			
203	Theta hat (MLE)		71.48		Theta star (bias corrected MLE)				81.59			
204	nu hat (MLE)		204.8		nu star (bias corrected)				179.4			
205	Mean (detects)		318.3									
206												
207	Gamma ROS Statistics using Imputed Non-Detects											
208	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
209	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
210	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
211	This is especially true when the sample size is small.											
212	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
213	Minimum		2.243		Mean				277.2			
214	Maximum		650		Median				230			
215	SD		177.4		CV				0.64			
216	k hat (MLE)		1.585		k star (bias corrected MLE)				1.433			

	A	B	C	D	E	F	G	H	I	J	K	L
217	Theta hat (MLE)					174.9	Theta star (bias corrected MLE)					193.4
218	nu hat (MLE)					85.58	nu star (bias corrected)					77.4
219	Adjusted Level of Significance (β)					0.0401						
220	Approximate Chi Square Value (77.40, α)					58.13	Adjusted Chi Square Value (77.40, β)					57.07
221	95% Gamma Approximate UCL (use when $n \geq 50$)					369.1	95% Gamma Adjusted UCL (use when $n < 50$)					376
222												
223	Estimates of Gamma Parameters using KM Estimates											
224	Mean (KM)					285.9	SD (KM)					162.9
225	Variance (KM)					26528	SE of Mean (KM)					32.05
226	k hat (KM)					3.082	k star (KM)					2.764
227	nu hat (KM)					166.4	nu star (KM)					149.3
228	theta hat (KM)					92.78	theta star (KM)					103.4
229	80% gamma percentile (KM)					411.8	90% gamma percentile (KM)					516.5
230	95% gamma percentile (KM)					614.5	99% gamma percentile (KM)					827.9
231												
232	Gamma Kaplan-Meier (KM) Statistics											
233	Approximate Chi Square Value (149.26, α)					122	Adjusted Chi Square Value (149.26, β)					120.4
234	95% Gamma Approximate KM-UCL (use when $n \geq 50$)					349.8	95% Gamma Adjusted KM-UCL (use when $n < 50$)					354.3
235												
236	Lognormal GOF Test on Detected Observations Only											
237	Shapiro Wilk Test Statistic					0.96	Shapiro Wilk GOF Test					
238	5% Shapiro Wilk Critical Value					0.914	Detected Data appear Lognormal at 5% Significance Level					
239	Lilliefors Test Statistic					0.153	Lilliefors GOF Test					
240	5% Lilliefors Critical Value					0.18	Detected Data appear Lognormal at 5% Significance Level					
241	Detected Data appear Lognormal at 5% Significance Level											
242												
243	Lognormal ROS Statistics Using Imputed Non-Detects											
244	Mean in Original Scale					284.6	Mean in Log Scale					5.476
245	SD in Original Scale					167.6	SD in Log Scale					0.62
246	95% t UCL (assumes normality of ROS data)					339.6	95% Percentile Bootstrap UCL					340.3
247	95% BCA Bootstrap UCL					345.7	95% Bootstrap t UCL					343.2
248	95% H-UCL (Log ROS)					373						
249												
250	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
251	KM Mean (logged)					5.492	KM Geo Mean					242.8
252	KM SD (logged)					0.58	95% Critical H Value (KM-Log)					2.042
253	KM Standard Error of Mean (logged)					0.114	95% H-UCL (KM -Log)					362.3
254	KM SD (logged)					0.58	95% Critical H Value (KM-Log)					2.042
255	KM Standard Error of Mean (logged)					0.114						
256												
257	DL/2 Statistics											
258	DL/2 Normal						DL/2 Log-Transformed					
259	Mean in Original Scale					278.5	Mean in Log Scale					5.389
260	SD in Original Scale					175.3	SD in Log Scale					0.775
261	95% t UCL (Assumes normality)					336.1	95% H-Stat UCL					416.3
262	DL/2 is not a recommended method, provided for comparisons and historical reasons											
263												
264	Nonparametric Distribution Free UCL Statistics											
265	Detected Data appear Gamma Distributed at 5% Significance Level											
266												
267	Suggested UCL to Use											
268	95% KM Adjusted Gamma UCL					354.3	95% GROS Adjusted Gamma UCL					376
269												
270	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

	A	B	C	D	E	F	G	H	I	J	K	L
271	Recommendations are based upon data size, data distribution, and skewness.											
272	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
273	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
274												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	D01.0120220510110022_02	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT C: LABORATORY CERTIFICATES

Company	AGON Environmental - Tunnel Spoil Testing	Project ID	JC0927	Project Manager	Craig Trimbur	Sample(s)	WOH + DB +AV + LR
Address	Unit H78, 63-85 Turner St, Port Melbourne VIC 3207	Project Name	WGTP-Tunnel Ref: 20220429043329-Eurofin-21	EDD Format	Esdat	Handed over by	
Contact Name	Craig Trimbur David Lawson	Analyses	Spot Sample Preparation Sulfide WGTP-AI-TRH/PAH/Phenol/ COP/ PCB/ VOC/ Vinyl Chloride/ Metals (As Cd, Cr, Cu, Hg, Pb, Ag, Se, Mo, Se, Zn)/ CB/ CNV/ Total Fluoride/ pH PFAS Extended Suite - 01 - 5ug/Ly ASLP PH 1 - PFAS 0.01-0.05 ug/L AUSP Report - PFAS 0.01-0.05ug/L			Email for Invoice	finance@agonenviro.com.au LabReports.TST@agonenviro.com.au
Phone No	+61 400 828 807 (Craig) +61 480 411 004 (David)					Email for Results	LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherlabresults1@wgtp.com.au Amrli.Kaur@nglo-analytics.com.au
Special Directions	Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.					Containers	Required Turnaround Time (TAT) *Turnaround to 3 day production
Purchase Order						500mL Plastic	
Quote ID No	Agon WGTP TST					250mL Plastic	
						125mL Plastic	
						200mL Amber Glass	
						40mL VOA vial	
						500mL PFAS Bottle	
						Air (Glass or HDPE)	
						Other (Please describe with quantity)	

No	Client Sample ID	Sampled Date/Time	Matrix	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Air (Glass or HDPE)	Other (Please describe with quantity)	Sample Comments / Dangerous Goods Hazard Warning
1	SX_IB_20220429_07_48_SS_Triplicate_EUF	28/04/22	S	X	X	X	X	X				
2	SX_IB_20220429_07_57_SS_Primary_EUF	28/04/22	S	X	X	X	X	X				
3	SX_IB_20220428_11_49_SS_Primary_EUF	28/04/22	S	X	X	X	X	X				
4	SX_IB_20220428_11_56_SS_Primary_EUF	28/04/22	S							X		
5	SX_IB_20220428_13_37_SR_Primary_EUF	28/04/22	W				X					
6	SX_IB_20220428_13_40_SB_Primary_EUF	28/04/22	W				X					
7	SX_IB_20220429_15_51_SS_Triplicate_EUF	28/04/22	S							X		
8	SX_IB_20220429_15_54_SS_Primary_EUF	28/04/22	S	X	X	X	X	X				
9	SX_IB_20220428_18_00_SS_Primary_EUF	28/04/22	S							X		
10	SX_IB_20220429_00_00_SS_Primary_EUF	28/04/22	S	X	X	X	X	X				
11	SX_IB_20220429_00_02_SS_Duplicate_EUF	29/04/22	S	X	X	X	X	X				
12	SX_IB_20220429_04_06_SS_Primary_EUF	29/04/22	S	X	X	X	X	X				
13	SX_IB_20220429_04_12_SS_Primary_EUF	29/04/22	S							X		
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												

Method of Shipment		<input checked="" type="checkbox"/> Courier @	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Postal	Name	Signature	Date	Time
Laboratory Use Only		Received By	SYD MEL PER ADL NTL DRW	Signature	Date	Time	Temperature	Report No

Chilled: _____
 Temp: _____
 Correction: _____
 Final Temp: _____

Yes No
 19.9
 19.7
 19.7
 Coomi

883770 Jake

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 **883770-L**
Project name **20220429043329-Eurofin-21**
Project ID **JC0927**
Received Date **Apr 29, 2022**

Client Sample ID			SX_IB_202204 28_07_48_SS Triplicate_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_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- Ap0058985	M22- Ap0058986	M22- Ap0058987	M22- Ap0058988
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.2	5.3	5.3	5.6
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	89	85	113
13C5-PFPeA (surr.)	1	%	107	118	103	98
13C5-PFHxA (surr.)	1	%	75	78	76	70
13C4-PFHpA (surr.)	1	%	90	94	101	96
13C8-PFOA (surr.)	1	%	74	78	87	83
13C5-PFNA (surr.)	1	%	91	101	103	99
13C6-PFDA (surr.)	1	%	63	82	73	80
13C2-PFUnDA (surr.)	1	%	96	49	52	67
13C2-PFDoDA (surr.)	1	%	53	58	58	71
13C2-PFTeDA (surr.)	1	%	80	50	56	36
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

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_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- Ap0058985	M22- Ap0058986	M22- Ap0058987	M22- Ap0058988
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
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	%	68	81	76	87
D3-N-MeFOSA (surr.)	1	%	24	32	21	53
D5-N-EtFOSA (surr.)	1	%	23	30	21	105
D7-N-MeFOSE (surr.)	1	%	49	71	54	86
D9-N-EtFOSE (surr.)	1	%	43	54	44	70
D5-N-EtFOSAA (surr.)	1	%	19	19	25	25
D3-N-MeFOSAA (surr.)	1	%	23	19	20	23
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	%	32	33	37	51
18O2-PFHxS (surr.)	1	%	75	75	82	94
13C8-PFOS (surr.)	1	%	76	91	73	85
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	%	124	108	122	84
13C2-6:2 FTSA (surr.)	1	%	82	78	80	51
13C2-8:2 FTSA (surr.)	1	%	148	164	152	136
13C2-10:2 FTSA (surr.)	1	%	72	60	64	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_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF	SX_IB_202204 28_07_48_SS Triplicate_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0058989	M22- Ap0058990	M22- Ap0058991	M22- Ap0058992
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 28, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	4.9	5.0	5.0	7.1
pH (off)	0.1	pH Units	5.3	5.0	5.1	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 (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	87	89	90	88
13C5-PFPeA (surr.)	1	%	106	104	101	104
13C5-PFHxA (surr.)	1	%	78	63	75	84
13C4-PFHpA (surr.)	1	%	96	90	89	95
13C8-PFOA (surr.)	1	%	82	80	73	69
13C5-PFNA (surr.)	1	%	103	82	80	76
13C6-PFDA (surr.)	1	%	80	74	67	71
13C2-PFUnDA (surr.)	1	%	54	133	127	60
13C2-PFDoDA (surr.)	1	%	54	130	118	99
13C2-PFTTeDA (surr.)	1	%	23	114	95	90
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	%	76	81	85	79
D3-N-MeFOSA (surr.)	1	%	23	97	88	36
D5-N-EtFOSA (surr.)	1	%	21	102	93	38
D7-N-MeFOSE (surr.)	1	%	61	76	77	75
D9-N-EtFOSE (surr.)	1	%	47	76	72	70
D5-N-EtFOSAA (surr.)	1	%	25	143	92	31
D3-N-MeFOSAA (surr.)	1	%	25	128	96	23

Client Sample ID			SX_IB_202204 29_00_00_SS_ Primary_EUF	SX_IB_202204 29_00_02_SS_ Duplicate_EUF	SX_IB_202204 29_04_06_SS_ Primary_EUF	SX_IB_202204 28_07_48_SS_ Triplicate_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0058989	M22- Ap0058990	M22- Ap0058991	M22- Ap0058992
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 28, 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	%	121	72	68	53
18O2-PFHxS (surr.)	1	%	79	95	85	82
13C8-PFOS (surr.)	1	%	75	69	61	82
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	134	157	99
13C2-6:2 FTSA (surr.)	1	%	89	87	95	61
13C2-8:2 FTSA (surr.)	1	%	110	100	138	68
13C2-10:2 FTSA (surr.)	1	%	66	101	67	38
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_202204 28_07_57_SS_ Primary_EUF	SX_IB_202204 28_11_49_SS_ Primary_EUF	SX_IB_202204 28_15_54_SS_ Primary_EUF	SX_IB_202204 29_00_00_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- Ap0058993	M22- Ap0058994	M22- Ap0058995	M22- Ap0058996
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 29, 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	7.1	7.1	7.1	7.1
pH (off)	0.1	pH Units	9.1	9.0	10	9.3

Client Sample ID			SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF	SX_IB_202204 29_00_00_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- Ap0058993	M22- Ap0058994	M22- Ap0058995	M22- Ap0058996
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 29, 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 (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	%	87	85	87	81
13C5-PFPeA (surr.)	1	%	101	101	98	94
13C5-PFHxA (surr.)	1	%	82	80	82	75
13C4-PFHpA (surr.)	1	%	88	87	85	83
13C8-PFOA (surr.)	1	%	64	62	71	57
13C5-PFNA (surr.)	1	%	75	76	69	62
13C6-PFDA (surr.)	1	%	67	73	62	70
13C2-PFUnDA (surr.)	1	%	63	63	48	55
13C2-PFDoDA (surr.)	1	%	83	89	62	91
13C2-PFTTeDA (surr.)	1	%	73	86	48	70
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	%	72	77	65	66
D3-N-MeFOSA (surr.)	1	%	39	46	53	55
D5-N-EtFOSA (surr.)	1	%	46	55	51	52
D7-N-MeFOSE (surr.)	1	%	68	71	54	59
D9-N-EtFOSE (surr.)	1	%	70	67	49	63
D5-N-EtFOSAA (surr.)	1	%	14	12	18	24
D3-N-MeFOSAA (surr.)	1	%	29	14	12	17
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

Client Sample ID			SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF	SX_IB_202204 29_00_00_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- Ap0058993	M22- Ap0058994	M22- Ap0058995	M22- Ap0058996
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 29, 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	%	48	50	60	46
18O2-PFHxS (surr.)	1	%	81	87	80	82
13C8-PFOS (surr.)	1	%	71	73	72	70
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	%	95	92	93	90
13C2-6:2 FTSA (surr.)	1	%	59	58	59	49
13C2-8:2 FTSA (surr.)	1	%	75	85	61	70
13C2-10:2 FTSA (surr.)	1	%	28	39	21	42
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_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0058997	M22- Ap0058998
Date Sampled			Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	7.1	7.1
pH (off)	0.1	pH Units	9.0	9.5
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

Client Sample ID			SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- Ap0058997	M22- Ap0058998
Date Sampled			Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
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 (PFTTrDA) ^{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	%	93	100
13C5-PFPeA (surr.)	1	%	105	121
13C5-PFHxA (surr.)	1	%	95	101
13C4-PFHpA (surr.)	1	%	104	108
13C8-PFOA (surr.)	1	%	61	56
13C5-PFNA (surr.)	1	%	100	99
13C6-PFDA (surr.)	1	%	73	88
13C2-PFUnDA (surr.)	1	%	93	76
13C2-PFDoDA (surr.)	1	%	92	87
13C2-PFTeDA (surr.)	1	%	54	37
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	%	82	90
D3-N-MeFOSA (surr.)	1	%	126	103
D5-N-EtFOSA (surr.)	1	%	124	100
D7-N-MeFOSE (surr.)	1	%	76	74
D9-N-EtFOSE (surr.)	1	%	80	74
D5-N-EtFOSAA (surr.)	1	%	32	66
D3-N-MeFOSAA (surr.)	1	%	56	44
Perfluoroalkyl sulfonic acids (PFSA)				
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	%	54	61
18O2-PFHxS (surr.)	1	%	90	103
13C8-PFOS (surr.)	1	%	79	77

Client Sample ID			SX_IB_202204_29_00_02_SS_Duplicate_EUF	SX_IB_202204_29_04_06_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Ap0058997	M22-Ap0058998
Date Sampled			Apr 29, 2022	Apr 29, 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
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	%	104	134
13C2-6:2 FTSA (surr.)	1	%	84	100
13C2-8:2 FTSA (surr.)	1	%	141	124
13C2-10:2 FTSA (surr.)	1	%	104	99
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 03, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 03, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 03, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_IB_20220428_07_48_SS_Triplicate_EUF	Apr 28, 2022	7:48AM	Soil	M22-Ap0058976			X	X	X
2	SX_IB_20220428_07_57_SS_Primary_EUF	Apr 28, 2022	7:57AM	Soil	M22-Ap0058977			X	X	X
3	SX_IB_20220428_11_49_SS_Primary_EUF	Apr 28, 2022	11:49AM	Soil	M22-Ap0058978			X	X	X
4	SX_IB_20220428_13_37_SR	Apr 28, 2022	1:37PM	Water	M22-Ap0058979				X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	_Primary_EUF									
5	SX_IB_20220428_13_40_SB_Primary_EUF	Apr 28, 2022	1:40PM	Water	M22-Ap0058980			X		
6	SX_IB_20220428_15_54_SS_Primary_EUF	Apr 28, 2022	3:54PM	Soil	M22-Ap0058981			X	X	X
7	SX_IB_20220429_00_00_SS_Primary_EUF	Apr 29, 2022		Soil	M22-Ap0058982			X	X	X
8	SX_IB_20220429_00_02_SS_Duplicate_EUF	Apr 29, 2022	12:02AM	Soil	M22-Ap0058983			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
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Project Name:	20220429043329-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										
9	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	Soil	M22- Ap0058984			X	X	X
10	SX_IB_202204 28_07_48_SS _Triplicate_EU F	Apr 28, 2022	7:48AM	AUS Leachate - pH 5.0	M22- Ap0058985		X		X	
11	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - pH 5.0	M22- Ap0058986		X		X	
12	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - pH 5.0	M22- Ap0058987		X		X	
13	SX_IB_202204	Apr 28, 2022	3:54PM	AUS Leachate	M22-		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
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Project Name:	20220429043329-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										
	28_15_54_SS _Primary_EUF			- pH 5.0	Ap0058988					
14	SX_IB_202204 29_00_00_SS _Primary_EUF	Apr 29, 2022		AUS Leachate - pH 5.0	M22- Ap0058989		X		X	
15	SX_IB_202204 29_00_02_SS _Duplicate_EU F	Apr 29, 2022	12:02AM	AUS Leachate - pH 5.0	M22- Ap0058990		X		X	
16	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - pH 5.0	M22- Ap0058991		X		X	
17	SX_IB_202204 28_07_48_SS	Apr 28, 2022	7:48AM	AUS Leachate - Reagent	M22- Ap0058992		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	28_07_48_SS _TriPLICATE_EU F			- Reagent Water	Ap0058992					
18	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - Reagent Water	M22- Ap0058993		X		X	
19	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - Reagent Water	M22- Ap0058994		X		X	
20	SX_IB_202204 28_15_54_SS _Primary_EUF	Apr 28, 2022	3:54PM	AUS Leachate - Reagent Water	M22- Ap0058995		X		X	
21	SX_IB_202204 29_00_00_SS	Apr 29, 2022		AUS Leachate - Reagent	M22- Ap0058996		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	_Primary_EUF			Water						
22	SX_IB_202204_29_00_02_SS_Duplicate_EU_F	Apr 29, 2022	12:02AM	AUS Leachate - Reagent Water	M22-Ap0058997		X		X	
23	SX_IB_202204_29_04_06_SS_Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - Reagent Water	M22-Ap0058998		X		X	
24	SX_IB_202204_28_11_56_SS_Primary_EUF	Apr 28, 2022	11:56AM	Soil	M22-Ap0058999	X				
25	SX_IB_202204_28_15_51_SS_Triplicate_EU	Apr 28, 2022	3:51PM	Soil	M22-Ap0059000	X				

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	_Triplicate_EU F									
26	SX_IB_202204 28_16_00_SS _Primary_EUF	Apr 28, 2022	4:00PM	Soil	M22- Ap0059001	X				
27	SX_IB_202204 29_04_12_SS _Primary_EUF	Apr 29, 2022	4:12AM	Soil	M22- Ap0059002	X				
Test Counts						4	14	7	23	7

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)	%	98		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	115		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	95		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	98		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	107		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	97		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	104		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	114		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	109		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	127		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)	%	98			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	107			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	109			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	95			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	105			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	122			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	109			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	90			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	93			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	112			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	86			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	81			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	95			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	95			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	120			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	119			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	87			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
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0058985	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-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0058985	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-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0058985	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0058985	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0058990	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-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0058990	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-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0058990	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0058990	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0058990	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
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **David Lawson**

Report **883770-S**
Project name **20220429043329-Eurofin-21**
Project ID **JC0927**
Received Date **Apr 29, 2022**

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 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_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 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	%	69	73	78	64
Toluene-d8 (surr.)	1	%	83	84	75	69
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

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	82	71	99
p-Terphenyl-d14 (surr.)	1	%	76	81	72	91
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	%	70	97	63	123
Tetrachloro-m-xylene (surr.)	1	%	115	109	97	116

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	70	97	63	123
Tetrachloro-m-xylene (surr.)	1	%	115	109	97	116
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	%	45	50	47	38
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	560	550	< 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	8.7	8.6	6.8	10
% Moisture						
% Moisture	1	%	34	32	34	33
Heavy Metals						
Arsenic	2	mg/kg	35	51	42	36
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	110	170	170	110
Copper	5	mg/kg	81	97	100	64
Lead	5	mg/kg	5.1	7.4	7.7	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	230	310	290	170
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	140	200	200	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 (PFTeDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	76	78	77	91
13C5-PFPeA (surr.)	1	%	82	80	84	103
13C5-PFHxA (surr.)	1	%	69	71	71	87
13C4-PFHpA (surr.)	1	%	71	69	71	90
13C8-PFOA (surr.)	1	%	63	68	77	84
13C5-PFNA (surr.)	1	%	74	74	53	73
13C6-PFDA (surr.)	1	%	81	61	86	66
13C2-PFUnDA (surr.)	1	%	78	92	96	92
13C2-PFDoDA (surr.)	1	%	85	85	101	95
13C2-PFTeDA (surr.)	1	%	78	79	85	107
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	85	89	95
D3-N-MeFOSA (surr.)	1	%	99	87	92	97
D5-N-EtFOSA (surr.)	1	%	103	111	121	116
D7-N-MeFOSE (surr.)	1	%	72	62	74	89
D9-N-EtFOSE (surr.)	1	%	87	79	84	95
D5-N-EtFOSAA (surr.)	1	%	108	98	129	67
D3-N-MeFOSAA (surr.)	1	%	129	80	91	76

Client Sample ID			SX_IB_202204 28_07_48_SS TriPLICATE_EUF	SX_IB_202204 28_07_57_SS Primary_EUF	SX_IB_202204 28_11_49_SS Primary_EUF	SX_IB_202204 28_15_54_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058976	M22- Ap0058977	M22- Ap0058978	M22- Ap0058981
Date Sampled			Apr 28, 2022	Apr 28, 2022	Apr 28, 2022	Apr 28, 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	%	59	63	63	91
18O2-PFHxS (surr.)	1	%	65	77	59	70
13C8-PFOS (surr.)	1	%	72	74	60	72
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	%	58	62	51	53
13C2-6:2 FTSA (surr.)	1	%	103	75	66	94
13C2-8:2 FTSA (surr.)	1	%	64	87	70	74
13C2-10:2 FTSA (surr.)	1	%	116	139	112	125
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_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50

Client Sample ID			SX_IB_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
Volatile Organics					
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Volatile Organics					
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Volatile Organics					
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	63	52	61
Toluene-d8 (surr.)	1	%	59	51	68
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	105	97	96
p-Terphenyl-d14 (surr.)	1	%	109	88	91
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05

Client Sample ID			SX_IB_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	70	106	63
Tetrachloro-m-xylene (surr.)	1	%	126	119	124
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	70	106	63
Tetrachloro-m-xylene (surr.)	1	%	126	119	124
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1

Client Sample ID			SX_IB_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	44	55	64
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Chromium (hexavalent)					
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1
Cyanide (total)					
Cyanide (total)	5	mg/kg	< 5	< 5	< 5
Fluoride (Total)					
Fluoride (Total)	100	mg/kg	590	< 100	170
pH (1:5 Aqueous extract at 25°C as rec.)					
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.8	9.1	9.7
% Moisture					
% Moisture	1	%	35	35	36
Heavy Metals					
Arsenic	2	mg/kg	25	32	23
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	110	120	99
Copper	5	mg/kg	60	62	62
Lead	5	mg/kg	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5
Nickel	5	mg/kg	160	180	160
Selenium	2	mg/kg	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10
Zinc	5	mg/kg	110	130	120
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	69	85	82
13C5-PFPeA (surr.)	1	%	73	93	79
13C5-PFHxA (surr.)	1	%	62	81	77

Client Sample ID			SX_IB_202204 29_00_00_SS Primary_EUF	SX_IB_202204 29_00_02_SS Duplicate_EUF	SX_IB_202204 29_04_06_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
13C4-PFHpA (surr.)	1	%	62	82	82
13C8-PFOA (surr.)	1	%	68	82	86
13C5-PFNA (surr.)	1	%	60	57	60
13C6-PFDA (surr.)	1	%	96	62	60
13C2-PFUnDA (surr.)	1	%	74	113	96
13C2-PFDoDA (surr.)	1	%	69	99	107
13C2-PFTeDA (surr.)	1	%	76	101	96
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	70	96	94
D3-N-MeFOSA (surr.)	1	%	88	98	78
D5-N-EtFOSA (surr.)	1	%	97	114	115
D7-N-MeFOSE (surr.)	1	%	70	81	80
D9-N-EtFOSE (surr.)	1	%	78	102	91
D5-N-EtFOSAA (surr.)	1	%	67	86	113
D3-N-MeFOSAA (surr.)	1	%	62	134	140
Perfluoroalkyl sulfonic acids (PFSA)					
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	56	70	69
18O2-PFHxS (surr.)	1	%	51	80	78
13C8-PFOS (surr.)	1	%	60	64	68
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	50	66	67
13C2-6:2 FTSA (surr.)	1	%	75	59	63

Client Sample ID			SX_IB_202204 29_00_00_SS_ Primary_EUF	SX_IB_202204 29_00_02_SS_ Duplicate_EUF	SX_IB_202204 29_04_06_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- Ap0058982	M22- Ap0058983	M22- Ap0058984
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit			
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
13C2-8:2 FTSA (surr.)	1	%	75	59	63
13C2-10:2 FTSA (surr.)	1	%	85	89	94
PFASs Summations					
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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	Apr 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 30, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 30, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Apr 30, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Apr 30, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 30, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Apr 30, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Apr 30, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 30, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Apr 30, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Apr 30, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 03, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	Apr 30, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 06, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Apr 30, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Apr 29, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 30, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 30, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 30, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 30, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_IB_20220428_07_48_SS_Triplicate_EUF	Apr 28, 2022	7:48AM	Soil	M22-Ap0058976			X	X	X
2	SX_IB_20220428_07_57_SS_Primary_EUF	Apr 28, 2022	7:57AM	Soil	M22-Ap0058977			X	X	X
3	SX_IB_20220428_11_49_SS_Primary_EUF	Apr 28, 2022	11:49AM	Soil	M22-Ap0058978			X	X	X
4	SX_IB_20220428_13_37_SR	Apr 28, 2022	1:37PM	Water	M22-Ap0058979				X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
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Project Name:	20220429043329-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
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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										
	_Primary_EUF									
5	SX_IB_20220428_13_40_SB_Primary_EUF	Apr 28, 2022	1:40PM	Water	M22-Ap0058980			X		
6	SX_IB_20220428_15_54_SS_Primary_EUF	Apr 28, 2022	3:54PM	Soil	M22-Ap0058981			X	X	X
7	SX_IB_20220429_00_00_SS_Primary_EUF	Apr 29, 2022		Soil	M22-Ap0058982			X	X	X
8	SX_IB_20220429_00_02_SS_Duplicate_EUF	Apr 29, 2022	12:02AM	Soil	M22-Ap0058983			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
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Project Name:	20220429043329-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
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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										
9	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	Soil	M22- Ap0058984			X	X	X
10	SX_IB_202204 28_07_48_SS _Triplicate_EU F	Apr 28, 2022	7:48AM	AUS Leachate - pH 5.0	M22- Ap0058985		X		X	
11	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - pH 5.0	M22- Ap0058986		X		X	
12	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - pH 5.0	M22- Ap0058987		X		X	
13	SX_IB_202204	Apr 28, 2022	3:54PM	AUS Leachate	M22-		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	28_15_54_SS _Primary_EUF			- pH 5.0	Ap0058988					
14	SX_IB_202204 29_00_00_SS _Primary_EUF	Apr 29, 2022		AUS Leachate - pH 5.0	M22- Ap0058989		X		X	
15	SX_IB_202204 29_00_02_SS _Duplicate_EU F	Apr 29, 2022	12:02AM	AUS Leachate - pH 5.0	M22- Ap0058990		X		X	
16	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - pH 5.0	M22- Ap0058991		X		X	
17	SX_IB_202204 28_07_48_SS	Apr 28, 2022	7:48AM	AUS Leachate - Reagent	M22- Ap0058992		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	28_07_48_SS _TriPLICATE_EU F			- Reagent Water	Ap0058992					
18	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - Reagent Water	M22- Ap0058993		X		X	
19	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - Reagent Water	M22- Ap0058994		X		X	
20	SX_IB_202204 28_15_54_SS _Primary_EUF	Apr 28, 2022	3:54PM	AUS Leachate - Reagent Water	M22- Ap0058995		X		X	
21	SX_IB_202204 29_00_00_SS	Apr 29, 2022		AUS Leachate - Reagent	M22- Ap0058996		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
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Project Name:	20220429043329-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										
	_Primary_EUF			Water						
22	SX_IB_202204_29_00_02_SS_Duplicate_EU_F	Apr 29, 2022	12:02AM	AUS Leachate - Reagent Water	M22-Ap0058997		X		X	
23	SX_IB_202204_29_04_06_SS_Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - Reagent Water	M22-Ap0058998		X		X	
24	SX_IB_202204_28_11_56_SS_Primary_EUF	Apr 28, 2022	11:56AM	Soil	M22-Ap0058999	X				
25	SX_IB_202204_28_15_51_SS_Triplicate_EU	Apr 28, 2022	3:51PM	Soil	M22-Ap0059000	X				

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
	_Triplicate_EU F									
26	SX_IB_202204 28_16_00_SS _Primary_EUF	Apr 28, 2022	4:00PM	Soil	M22- Ap0059001	X				
27	SX_IB_202204 29_04_12_SS _Primary_EUF	Apr 29, 2022	4:12AM	Soil	M22- Ap0059002	X				
Test Counts						4	14	7	23	7

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	%	111		70-130	Pass	
TRH C10-C14	%	116		70-130	Pass	
Naphthalene	%	91		70-130	Pass	
TRH C6-C10	%	104		70-130	Pass	
TRH >C10-C16	%	119		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	95		70-130	Pass	
1.1.1-Trichloroethane	%	83		70-130	Pass	
1.2-Dichlorobenzene	%	95		70-130	Pass	
1.2-Dichloroethane	%	77		70-130	Pass	
Benzene	%	76		70-130	Pass	
Ethylbenzene	%	96		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	99			70-130	Pass	
Toluene	%	92			70-130	Pass	
Trichloroethene	%	77			70-130	Pass	
Xylenes - Total*	%	99			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	98			70-130	Pass	
Acenaphthylene	%	117			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	
Benzo(b&i)fluoranthene	%	100			70-130	Pass	
Benzo(g,h,i)perylene	%	97			70-130	Pass	
Benzo(k)fluoranthene	%	102			70-130	Pass	
Chrysene	%	115			70-130	Pass	
Dibenz(a,h)anthracene	%	86			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	106			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	80			70-130	Pass	
Naphthalene	%	107			70-130	Pass	
Phenanthrene	%	90			70-130	Pass	
Pyrene	%	110			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	86			70-130	Pass	
4,4'-DDD	%	123			70-130	Pass	
4,4'-DDE	%	88			70-130	Pass	
4,4'-DDT	%	85			70-130	Pass	
a-HCH	%	86			70-130	Pass	
Aldrin	%	97			70-130	Pass	
b-HCH	%	92			70-130	Pass	
d-HCH	%	91			70-130	Pass	
Dieldrin	%	95			70-130	Pass	
Endosulfan I	%	90			70-130	Pass	
Endosulfan II	%	79			70-130	Pass	
Endosulfan sulphate	%	78			70-130	Pass	
Endrin	%	72			70-130	Pass	
Endrin aldehyde	%	85			70-130	Pass	
Endrin ketone	%	97			70-130	Pass	
g-HCH (Lindane)	%	88			70-130	Pass	
Heptachlor	%	87			70-130	Pass	
Heptachlor epoxide	%	90			70-130	Pass	
Hexachlorobenzene	%	82			70-130	Pass	
Methoxychlor	%	87			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	121			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	90			25-140	Pass	
2,4-Dichlorophenol	%	79			25-140	Pass	
2,4,5-Trichlorophenol	%	72			25-140	Pass	
2,4,6-Trichlorophenol	%	65			25-140	Pass	
2,6-Dichlorophenol	%	77			25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	69		25-140	Pass	
Pentachlorophenol	%	63		25-140	Pass	
Tetrachlorophenols - Total	%	85		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	%	40		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	35		25-140	Pass	
2-Nitrophenol	%	68		25-140	Pass	
2,4-Dimethylphenol	%	71		25-140	Pass	
2,4-Dinitrophenol	%	63		25-140	Pass	
2-Methylphenol (o-Cresol)	%	91		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	90		25-140	Pass	
4-Nitrophenol	%	40		25-140	Pass	
Dinoseb	%	34		25-140	Pass	
Phenol	%	90		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	93		70-130	Pass	
Cyanide (total)	%	118		70-130	Pass	
Fluoride (Total)	%	103		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	98		80-120	Pass	
Cadmium	%	96		80-120	Pass	
Chromium	%	97		80-120	Pass	
Copper	%	98		80-120	Pass	
Lead	%	99		80-120	Pass	
Mercury	%	97		80-120	Pass	
Molybdenum	%	96		80-120	Pass	
Nickel	%	95		80-120	Pass	
Selenium	%	100		80-120	Pass	
Silver	%	93		80-120	Pass	
Tin	%	100		80-120	Pass	
Zinc	%	97		80-120	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	134		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	93		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	98		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	111		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	103		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	75		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	102		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	94		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	93		50-150	Pass	
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)	%	103		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	91		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	100		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	50		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	104			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	120			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	121			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	94			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	97			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	79			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	126			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	120			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	100			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	90			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	95			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	96			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	B22-Ap0046861	NCP	%	90		70-130	Pass	
TRH C10-C14	M22-Ap0049120	NCP	%	123		70-130	Pass	
Naphthalene	B22-Ap0046861	NCP	%	78		70-130	Pass	
TRH C6-C10	B22-Ap0046861	NCP	%	91		70-130	Pass	
TRH >C10-C16	M22-Ap0049120	NCP	%	126		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	B22-Ap0046861	NCP	%	89		70-130	Pass	
1.1.1-Trichloroethane	B22-Ap0046861	NCP	%	82		70-130	Pass	
1.2-Dichlorobenzene	B22-Ap0046861	NCP	%	78		70-130	Pass	
1.2-Dichloroethane	B22-Ap0046861	NCP	%	84		70-130	Pass	
Benzene	B22-Ap0046861	NCP	%	76		70-130	Pass	
Ethylbenzene	B22-Ap0046861	NCP	%	76		70-130	Pass	
m&p-Xylenes	B22-Ap0046861	NCP	%	78		70-130	Pass	
o-Xylene	B22-Ap0046861	NCP	%	82		70-130	Pass	
Toluene	B22-Ap0046861	NCP	%	80		70-130	Pass	
Trichloroethene	B22-Ap0046861	NCP	%	88		70-130	Pass	
Xylenes - Total*	B22-Ap0046861	NCP	%	80		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	L22-Ap0044801	NCP	%	82		70-130	Pass	
Acenaphthylene	L22-Ap0044801	NCP	%	103		70-130	Pass	
Anthracene	L22-Ap0044801	NCP	%	83		70-130	Pass	
Benz(a)anthracene	L22-Ap0044801	NCP	%	88		70-130	Pass	
Benzo(a)pyrene	L22-Ap0044801	NCP	%	87		70-130	Pass	
Benzo(b&j)fluoranthene	L22-Ap0044801	NCP	%	93		70-130	Pass	
Benzo(g,h,i)perylene	L22-Ap0044801	NCP	%	86		70-130	Pass	
Benzo(k)fluoranthene	L22-Ap0044801	NCP	%	77		70-130	Pass	
Chrysene	L22-Ap0044801	NCP	%	87		70-130	Pass	
Dibenz(a,h)anthracene	L22-Ap0044801	NCP	%	77		70-130	Pass	
Fluoranthene	L22-Ap0044801	NCP	%	77		70-130	Pass	
Fluorene	L22-Ap0044801	NCP	%	90		70-130	Pass	
Indeno(1.2.3-cd)pyrene	L22-Ap0044801	NCP	%	83		70-130	Pass	
Naphthalene	L22-Ap0044801	NCP	%	94		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	L22-Ap0044801	NCP	%	75		70-130	Pass	
Pyrene	L22-Ap0044801	NCP	%	86		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ap0052777	NCP	%	94		70-130	Pass	
4.4'-DDD	M22-Ap0052777	NCP	%	102		70-130	Pass	
4.4'-DDE	M22-Ap0052777	NCP	%	97		70-130	Pass	
4.4'-DDT	M22-Ap0052741	NCP	%	123		70-130	Pass	
a-HCH	M22-Ap0052777	NCP	%	88		70-130	Pass	
Aldrin	M22-Ap0052777	NCP	%	81		70-130	Pass	
b-HCH	M22-Ap0052777	NCP	%	83		70-130	Pass	
d-HCH	M22-Ap0052777	NCP	%	97		70-130	Pass	
Dieldrin	M22-Ap0052777	NCP	%	107		70-130	Pass	
Endosulfan I	M22-Ap0052777	NCP	%	114		70-130	Pass	
Endosulfan II	M22-Ap0052777	NCP	%	90		70-130	Pass	
Endosulfan sulphate	M22-Ap0052777	NCP	%	98		70-130	Pass	
Endrin	M22-Ap0052777	NCP	%	71		70-130	Pass	
Endrin aldehyde	M22-Ap0052777	NCP	%	97		70-130	Pass	
Endrin ketone	M22-Ap0052777	NCP	%	103		70-130	Pass	
g-HCH (Lindane)	M22-Ap0052777	NCP	%	74		70-130	Pass	
Heptachlor	M22-Ap0052777	NCP	%	79		70-130	Pass	
Heptachlor epoxide	M22-Ap0052777	NCP	%	87		70-130	Pass	
Hexachlorobenzene	M22-Ap0052777	NCP	%	75		70-130	Pass	
Methoxychlor	M22-Ap0052741	NCP	%	85		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	L22-Ap0039405	NCP	%	89		70-130	Pass	
Aroclor-1260	L22-Ap0039405	NCP	%	106		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	L22-Ap0044801	NCP	%	79		30-130	Pass	
2,4-Dichlorophenol	L22-Ap0044801	NCP	%	70		30-130	Pass	
2,4,5-Trichlorophenol	L22-Ap0044801	NCP	%	67		30-130	Pass	
2,4,6-Trichlorophenol	L22-Ap0044801	NCP	%	55		30-130	Pass	
2,6-Dichlorophenol	L22-Ap0044801	NCP	%	73		30-130	Pass	
4-Chloro-3-methylphenol	L22-Ap0044801	NCP	%	60		30-130	Pass	
Pentachlorophenol	L22-Ap0044801	NCP	%	59		30-130	Pass	
Tetrachlorophenols - Total	L22-Ap0044801	NCP	%	76		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	L22-Ap0044801	NCP	%	68		30-130	Pass	
2-Methyl-4,6-dinitrophenol	L22-Ap0044801	NCP	%	40		30-130	Pass	
2-Nitrophenol	L22-Ap0044801	NCP	%	57		30-130	Pass	
2,4-Dimethylphenol	L22-Ap0044801	NCP	%	68		30-130	Pass	
2,4-Dinitrophenol	L22-Ap0044801	NCP	%	63		30-130	Pass	
2-Methylphenol (o-Cresol)	L22-Ap0044801	NCP	%	72		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	L22-Ap0044801	NCP	%	72		30-130	Pass	
4-Nitrophenol	L22-Ap0044801	NCP	%	43		30-130	Pass	
Dinoseb	L22-Ap0044801	NCP	%	53		30-130	Pass	
Phenol	L22-Ap0044801	NCP	%	69		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-My0000814	NCP	%	69		70-130	Fail	Q08
Cyanide (total)	M22-Ap0054479	NCP	%	127		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Fluoride (Total)	M22-Ap0052521	NCP	%	72		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-Ap0050498	NCP	%	104		75-125	Pass	
Cadmium	M22-Ap0050498	NCP	%	87		75-125	Pass	
Chromium	M22-Ap0050498	NCP	%	97		75-125	Pass	
Copper	M22-Ap0050498	NCP	%	101		75-125	Pass	
Lead	M22-Ap0050498	NCP	%	114		75-125	Pass	
Mercury	M22-Ap0050498	NCP	%	102		75-125	Pass	
Molybdenum	M22-Ap0050498	NCP	%	86		75-125	Pass	
Nickel	M22-Ap0050498	NCP	%	101		75-125	Pass	
Selenium	M22-Ap0050498	NCP	%	87		75-125	Pass	
Silver	M22-Ap0050498	NCP	%	82		75-125	Pass	
Tin	M22-Ap0050498	NCP	%	96		75-125	Pass	
Zinc	M22-Ap0050498	NCP	%	125		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ap0055331	NCP	%	98		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0055331	NCP	%	94		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0055331	NCP	%	96		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0055331	NCP	%	99		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0055331	NCP	%	108		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0055331	NCP	%	99		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0055331	NCP	%	101		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0055331	NCP	%	104		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0055331	NCP	%	103		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0055331	NCP	%	104		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0055331	NCP	%	98		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ap0055331	NCP	%	105		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0055331	NCP	%	106		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0055331	NCP	%	90		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0055331	NCP	%	116		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0055331	NCP	%	92		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0055331	NCP	%	54		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0055331	NCP	%	115		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0055331	NCP	%	97		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0055331	NCP	%	125		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0055331	NCP	%	126		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0055331	NCP	%	97		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0055331	NCP	%	92			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0055331	NCP	%	56			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0055331	NCP	%	101			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0055331	NCP	%	136			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-Ap0055331	NCP	%	107			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0055331	NCP	%	84			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0055331	NCP	%	105			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0055331	NCP	%	100			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	B22-Ap0046860	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-Ap0049119	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Ap0049119	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Ap0049119	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	B22-Ap0046860	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-Ap0049119	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Ap0049119	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Ap0049119	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
4-Chlorotoluene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	B22-Ap0046860	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	B22-Ap0046860	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	B22-Ap0046860	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	B22-Ap0046860	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	B22-Ap0046860	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	B22-Ap0046860	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	B22-Ap0046860	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-Ap0052776	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-Ap0052776	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-Ap0052776	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-Ap0052776	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-Ap0052776	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-Ap0052776	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-Ap0052776	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-Ap0052776	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-Ap0052776	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-Ap0052776	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-Ap0052776	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-Ap0052776	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-Ap0052776	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-Ap0052776	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-Ap0052776	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-Ap0052776	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-Ap0056374	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-My0001925	NCP	mg/kg	500	400	21	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-Ap0052996	NCP	pH Units	8.4	8.8	pass	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-Ap0050498	NCP	mg/kg	47	46	2.0	30%	Pass
Cadmium	M22-Ap0050498	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-Ap0050498	NCP	mg/kg	18	17	1.0	30%	Pass
Copper	M22-Ap0050498	NCP	mg/kg	12	12	1.0	30%	Pass
Lead	M22-Ap0050498	NCP	mg/kg	23	22	2.0	30%	Pass
Mercury	M22-Ap0050498	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-Ap0050498	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-Ap0050498	NCP	mg/kg	20	20	1.0	30%	Pass
Selenium	M22-Ap0050498	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-Ap0050498	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-Ap0050498	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-Ap0050498	NCP	mg/kg	47	48	2.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTTeDA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0055795	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0055795	NCP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0055795	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0055795	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ap0058977	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-Ap0058978	CP	%	34	33	2.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-Ap0058981	CP	mg/kg	< 1	< 1	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Michael Cassidy	Analytical Services Manager
Mary Makarios	Senior Analyst (NSW)
Edward Lee	Senior Analyst (VIC)
Vivian Wang	Senior Analyst (VIC)
Joseph Edouard	Senior Analyst (VIC)
Caitlin Breeze	Senior Analyst (VIC)
Scott Beddoes	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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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 **883770-W**
Project name **20220429043329-Eurofin-21**
Project ID **JC0927**
Received Date **Apr 29, 2022**

Client Sample ID			SX_IB_202204 28_13_37_SR_ Primary_EUF	SX_IB_202204 28_13_40_SB_ Primary_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0058979	M22- Ap0058980
Date Sampled			Apr 28, 2022	Apr 28, 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	%	79	78
13C5-PFPeA (surr.)	1	%	90	89
13C5-PFHxA (surr.)	1	%	90	73
13C4-PFHpA (surr.)	1	%	81	70
13C8-PFOA (surr.)	1	%	96	73
13C5-PFNA (surr.)	1	%	83	72
13C6-PFDA (surr.)	1	%	87	56
13C2-PFUnDA (surr.)	1	%	124	30
13C2-PFDoDA (surr.)	1	%	121	39
13C2-PFTeDA (surr.)	1	%	100	11
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	%	63	59

Client Sample ID			SX_IB_202204 28_13_37_SR_ Primary_EUF	SX_IB_202204 28_13_40_SB_ Primary_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- Ap0058979	M22- Ap0058980
Date Sampled			Apr 28, 2022	Apr 28, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	50	13
D5-N-EtFOSA (surr.)	1	%	62	14
D7-N-MeFOSE (surr.)	1	%	58	18
D9-N-EtFOSE (surr.)	1	%	62	34
D5-N-EtFOSAA (surr.)	1	%	115	23
D3-N-MeFOSAA (surr.)	1	%	88	23
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	%	130	80
18O2-PFHxS (surr.)	1	%	100	70
13C8-PFOS (surr.)	1	%	108	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
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	%	59	36
13C2-6:2 FTSA (surr.)	1	%	50	74
13C2-8:2 FTSA (surr.)	1	%	80	54
13C2-10:2 FTSA (surr.)	1	%	135	29
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) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Apr 29, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	Apr 29, 2022 1:49 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	883770	Due:	May 6, 2022
Project Name:	20220429043329-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										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_IB_20220428_07_48_SS_Triplicate_EUF	Apr 28, 2022	7:48AM	Soil	M22-Ap0058976			X	X	X
2	SX_IB_20220428_07_57_SS_Primary_EUF	Apr 28, 2022	7:57AM	Soil	M22-Ap0058977			X	X	X
3	SX_IB_20220428_11_49_SS_Primary_EUF	Apr 28, 2022	11:49AM	Soil	M22-Ap0058978			X	X	X
4	SX_IB_20220428_13_37_SR	Apr 28, 2022	1:37PM	Water	M22-Ap0058979				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										
	_Primary_EUF									
5	SX_IB_20220428_13_40_SB_Primary_EUF	Apr 28, 2022	1:40PM	Water	M22-Ap0058980			X		
6	SX_IB_20220428_15_54_SS_Primary_EUF	Apr 28, 2022	3:54PM	Soil	M22-Ap0058981			X	X	X
7	SX_IB_20220429_00_00_SS_Primary_EUF	Apr 29, 2022		Soil	M22-Ap0058982			X	X	X
8	SX_IB_20220429_00_02_SS_Duplicate_EUF	Apr 29, 2022	12:02AM	Soil	M22-Ap0058983			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						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										
9	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	Soil	M22- Ap0058984			X	X	X
10	SX_IB_202204 28_07_48_SS _Triplicate_EU F	Apr 28, 2022	7:48AM	AUS Leachate - pH 5.0	M22- Ap0058985		X		X	
11	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - pH 5.0	M22- Ap0058986		X		X	
12	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - pH 5.0	M22- Ap0058987		X		X	
13	SX_IB_202204	Apr 28, 2022	3:54PM	AUS Leachate	M22-		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										
	28_15_54_SS _Primary_EUF			- pH 5.0	Ap0058988					
14	SX_IB_202204 29_00_00_SS _Primary_EUF	Apr 29, 2022		AUS Leachate - pH 5.0	M22- Ap0058989		X		X	
15	SX_IB_202204 29_00_02_SS _Duplicate_EU F	Apr 29, 2022	12:02AM	AUS Leachate - pH 5.0	M22- Ap0058990		X		X	
16	SX_IB_202204 29_04_06_SS _Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - pH 5.0	M22- Ap0058991		X		X	
17	SX_IB_202204 28_07_48_SS	Apr 28, 2022	7:48AM	AUS Leachate - Reagent	M22- Ap0058992		X		X	

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Project Name: 20220429043329-Eurofin-21
Project ID: JC0927

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										
	28_07_48_SS _TriPLICATE_EU F			- Reagent Water	Ap0058992					
18	SX_IB_202204 28_07_57_SS _Primary_EUF	Apr 28, 2022	7:57AM	AUS Leachate - Reagent Water	M22- Ap0058993		X		X	
19	SX_IB_202204 28_11_49_SS _Primary_EUF	Apr 28, 2022	11:49AM	AUS Leachate - Reagent Water	M22- Ap0058994		X		X	
20	SX_IB_202204 28_15_54_SS _Primary_EUF	Apr 28, 2022	3:54PM	AUS Leachate - Reagent Water	M22- Ap0058995		X		X	
21	SX_IB_202204 29_00_00_SS	Apr 29, 2022		AUS Leachate - Reagent	M22- Ap0058996		X		X	

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Project Name: 20220429043329-Eurofin-21
Project ID: JC0927

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										
	_Primary_EUF			Water						
22	SX_IB_20220429_00_02_SS_Duplicate_EUF	Apr 29, 2022	12:02AM	AUS Leachate - Reagent Water	M22-Ap0058997		X		X	
23	SX_IB_20220429_04_06_SS_Primary_EUF	Apr 29, 2022	4:06AM	AUS Leachate - Reagent Water	M22-Ap0058998		X		X	
24	SX_IB_20220428_11_56_SS_Primary_EUF	Apr 28, 2022	11:56AM	Soil	M22-Ap0058999	X				
25	SX_IB_20220428_15_51_SS_Triplicate_EU	Apr 28, 2022	3:51PM	Soil	M22-Ap0059000	X				

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Project Name:	20220429043329-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										
	_Triplicate_EU F									
26	SX_IB_202204 28_16_00_SS _Primary_EUF	Apr 28, 2022	4:00PM	Soil	M22- Ap0059001	X				
27	SX_IB_202204 29_04_12_SS _Primary_EUF	Apr 29, 2022	4:12AM	Soil	M22- Ap0059002	X				
Test Counts						4	14	7	23	7

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)	%	100		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	136		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	94		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	84		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	105		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	88		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	95		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	92		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	108		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	123		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	114			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	144			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	83			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	83			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	81			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	100			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	130			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	89			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	59			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	75			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	104			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	96			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	85			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	88			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	58			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	112			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	117			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	93			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	126			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-Ap0049645	NCP	%	122		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0049645	NCP	%	133		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0049645	NCP	%	73		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0049645	NCP	%	79		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0049645	NCP	%	89		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0049645	NCP	%	103		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0049645	NCP	%	81		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0049645	NCP	%	102		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0049645	NCP	%	87		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0049645	NCP	%	126		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0049645	NCP	%	113		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-Ap0049645	NCP	%	100		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0049645	NCP	%	121		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0049645	NCP	%	96		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0049645	NCP	%	100		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0049645	NCP	%	90		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-Ap0049645	NCP	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0049645	NCP	%	51			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0049645	NCP	%	84			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0049645	NCP	%	64			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0049645	NCP	%	77			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0049645	NCP	%	86			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0044637	NCP	%	74			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0049645	NCP	%	88			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0044637	NCP	%	55			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0049645	NCP	%	59			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-Ap0049645	NCP	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0049645	NCP	%	123			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0049645	NCP	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0049645	NCP	%	99			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-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0054055	NCP	ug/L	0.02	0.02	4.0	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0054055	NCP	ug/L	0.02	0.02	4.0	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0054055	NCP	ug/L	0.01	0.01	2.0	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0054055	NCP	ug/L	0.03	0.03	7.0	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0054055	NCP	ug/L	0.01	0.01	5.0	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0054055	NCP	ug/L	0.03	0.04	1.0	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0054055	NCP	ug/L	0.03	0.02	19	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0054055	NCP	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-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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CHAIN OF CUSTODY RECORD

Electrode Technology Pty Ltd
02 9500 8400

Sydney Laboratory
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2008
02 9500 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smashwood Place Muramba QLD 4172
07 3802 4500 EnviroSampleQLD@eurofins.com

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08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Montague Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927		Project Manager	Craig Trimbur		Sampler(s)	Martha / Toby Gray - Agon Enviro						
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref: 20220430060211-Eurofin-12		EDD Format	ESdat Equi.s etc		ESdat	Handed over by WHO						
Contact Name		Craig Trimbur David Lawson		Analysis When results are required, please specify "Total" or "Filtered" S.U.T. code must be used to amend S.U.T.E. pricing	Spot Sample Preparation		Sulphate WGTP-R-TRIH/PAH/Phenol/PCP/PCB/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/CB-/CW/Total Fluoride/ pH		PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l						
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)			PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l		ASLP P-Peragant - PFAS 0.01-10.05ug/l		Email for Invoice finance@agonenviro.com.au LabReports.TST@agonenviro.com.au						
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt.			PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l		ASLP P-Peragant - PFAS 0.01-10.05ug/l		Email for Results agonenvironmental@esdat.com.au motherhublabresults@wgtp.com.au AmrL.Kaur@ggile-analytics.com.au						
Purchase Order		Please provide eSRN along with other sample receipt documentation.			PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l		ASLP P-Peragant - PFAS 0.01-10.05ug/l		Containers Change container type & size if necessary						
Quote ID No		Agon WGTP TST		PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l		ASLP P-Peragant - PFAS 0.01-10.05ug/l		Required Turnaround Time (TAT) Default will be 5 days if not ticked							
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Soils (S) Water (W)	Spot Sample Preparation	Sulphate WGTP-R-TRIH/PAH/Phenol/PCP/PCB/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/CB-/CW/Total Fluoride/ pH					PFAS Extended Suite - 0 - 1 - 5ug/kg		ASLP PH - PFAS 0.01-10.05 ug/l		ASLP P-Peragant - PFAS 0.01-10.05ug/l		Other (Make sure AS/ISO/4, WA Outlined)	Sample Comments / Dangerous Goods Hazard Warning
					500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Overnight (reporting by Sam's)	Same day	2 days	5 days (Standard)		
1	SX_IB_20220429_08_13_SS_Triplicate_EUF	29.04.2022 8:13:00 AM	S	X	X	X	X	X									
2	SX_IB_20220429_12_06_SS_Primary_EUF	29.04.2022 12:06:00 AM	S	X	X	X	X	X									
3	SX_OB_20220429_16_11_SS_Primary_EUF	29.04.2022 16:11:00 AM	S	X	X	X	X	X									
4	SX_OB_20220429_16_13_SS_Duplicate_EUF	29.04.2022 16:13:00 AM	S	X	X	X	X	X									
5	SX_OB_20220429_16_30_SR_Rinse_EUF	29.04.2022 16:30:00 AM	W				X										
6	SX_OB_20220429_16_31_SB_Blank_EUF	29.04.2022 16:31:00 AM	W				X										
7	SX_OB_20220429_19_56_SS_Primary_EUF	29.04.2022 19:56:00 AM	S	X	X	X	X	X									
8	SX_OB_20220430_00_00_SS_Primary_EUF	30.04.2022 00:00:00 AM	S	X	X	X	X	X									
9	SX_OB_20220430_03_59_SS_Primary_EUF	30.04.2022 03:59:00 AM	S	X	X	X	X	X									
10																	
11																	
12																	
13																	
14																	
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18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
Total Counts				7	7	9	7	7									15
Method of Shipment		<input checked="" type="checkbox"/> Courier (#) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name		Signature		Date		Time		Temperature					
Laboratory Use Only		Received By: Jake		SYD BNE MEL PER ADL NTL DRW		Signature: [Signature]		Date: 30/4		Time: 10am		Report No					

884110

Callum MCEwan

From: David Lawson <David.Lawson@agonenviro.com.au>
Sent: Monday, 2 May 2022 8:55 AM
To: Callum MCEwan
Cc: William O'Haire; Michael Cassidy; Harry Bacalis; Adrian Tabacchiera; Mary Makarios; #AU_CAU001_EnviroSampleVic
Subject: RE: Missing COC - Eurofins - Saturday 30th April 2022 - Please Advise
Attachments: 20220430060211-Eurofin-12-Solid_00.xlsx; 20220430060732-Eurofin-12-Water_00.xlsx; 20220502031141-Eurofin-21-Water_00.xlsx; 20220502031840-ALS-21 Water_00.xlsx; 20220430083305-Eurofins-8-Water_00.xlsx

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Callum,

Please find attached

Regards,

David Lawson
Environmental Scientist

Agon Environmental
+61 4 9041 1004

David.Lawson@agonenviro.com.au

From: Callum MCEwan <CallumMCEwan@eurofins.com>
Sent: Monday, 2 May 2022 8:47 AM
To: David Lawson <David.Lawson@agonenviro.com.au>
Cc: William O'Haire <William.O'Haire@agonenviro.com.au>; Michael Cassidy <MichaelCassidy@eurofins.com>; Harry Bacalis <HarryBacalis@eurofins.com>; Adrian Tabacchiera <AdrianTabacchiera@eurofins.com>; Mary Makarios <MaryMakarios@eurofins.com>; #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>
Subject: RE: Missing COC - Eurofins - Saturday 30th April 2022 - Please Advise

Hi David,

Many thanks for that, we'll action ASAP once received.

Kind Regards,

Callum McEwan

Analytical Service Manager – VIC

Eurofins Environment Testing Australia Pty Ltd
6 Monterey Road | Dandenong South | VIC 3175 | AUSTRALIA
T: +61 3 8564 5053 | M: 0428104484
E: CallumMcEwan@eurofins.com | W: www.eurofins.com.au

From: David Lawson <David.Lawson@agonenviro.com.au>

Sent: Monday, 2 May 2022 8:46 AM

To: Callum McEwan <CallumMcEwan@eurofins.com>

Cc: William O'Haire <William.OHaire@agonenviro.com.au>; Michael Cassidy <MichaelCassidy@eurofins.com>; Harry Bacalis <HarryBacalis@eurofins.com>; Adrian Tabacchiera <AdrianTabacchiera@eurofins.com>; Mary Makarios <MaryMakarios@eurofins.com>; #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>

Subject: RE: Missing COC - Eurofins - Saturday 30th April 2022 - Please Advise

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Thanks Callum,

I will track it down and forward it ASAP

COC for today's pickup will also be sent soon

Thanks,

David Lawson
Environmental Scientist

Agon Environmental
+61 4 9041 1004

David.Lawson@agonenviro.com.au

From: Callum McEwan <CallumMcEwan@eurofins.com>

Sent: Monday, 2 May 2022 8:44 AM

To: David Lawson <David.Lawson@agonenviro.com.au>

Cc: William O'Haire <William.OHaire@agonenviro.com.au>; Michael Cassidy <MichaelCassidy@eurofins.com>; Harry Bacalis <HarryBacalis@eurofins.com>; Adrian Tabacchiera <AdrianTabacchiera@eurofins.com>; Mary Makarios <MaryMakarios@eurofins.com>; #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>

Subject: Missing COC - Eurofins - Saturday 30th April 2022 - Please Advise

Hi David,

Sorry to trouble you in the morning first thing.

Unfortunately we have not received the COC for the WGTP Spoils delivered to Eurofins on Saturday 30th April.

When you have a moment, would you be so kind to send the COC through and we will action ASAP.

Thanks for your time, I look forward in hearing from you soon.

Kind Regards,

Callum McEwan

Analytical Service Manager – VIC

Eurofins Environment Testing Australia Pty Ltd

6 Monterey Road | Dandenong South | VIC 3175 | AUSTRALIA

T: +61 3 8564 5053 | M: 0428104484

E: CallumMcEwan@eurofins.com | W: www.eurofins.com.au

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 **884110-L**
Project name **20220430060211-Eurofin-12**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS Duplicate_EU F
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- My0000820	M22- My0000821	M22- My0000822	M22- My0000823
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.0
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	%	83	99	95	83
13C5-PFPeA (surr.)	1	%	97	112	108	97
13C5-PFHxA (surr.)	1	%	76	95	88	81
13C4-PFHpA (surr.)	1	%	82	105	106	85
13C8-PFOA (surr.)	1	%	48	60	58	70
13C5-PFNA (surr.)	1	%	81	100	89	79
13C6-PFDA (surr.)	1	%	64	67	68	67
13C2-PFUnDA (surr.)	1	%	80	76	90	70
13C2-PFDoDA (surr.)	1	%	81	62	90	85
13C2-PFTTeDA (surr.)	1	%	91	26	51	98

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS Primary_EUF	SX_OB_20220 429_16_13_SS Duplicate_EU F
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- My0000820	M22- My0000821	M22- My0000822	M22- My0000823
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	%	75	78	78	71
D3-N-MeFOSA (surr.)	1	%	108	104	114	100
D5-N-EtFOSA (surr.)	1	%	126	102	124	118
D7-N-MeFOSE (surr.)	1	%	72	79	86	80
D9-N-EtFOSE (surr.)	1	%	77	78	86	80
D5-N-EtFOSAA (surr.)	1	%	55	54	63	47
D3-N-MeFOSAA (surr.)	1	%	46	48	57	50
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	%	49	47	42	64
18O2-PFHxS (surr.)	1	%	70	88	84	69
13C8-PFOS (surr.)	1	%	68	72	73	55
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	%	98	121	109	97
13C2-6:2 FTSA (surr.)	1	%	73	89	98	82
13C2-8:2 FTSA (surr.)	1	%	88	115	116	92
13C2-10:2 FTSA (surr.)	1	%	74	66	72	61
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF	SX_IB_202204 29_08_13_SS _Triplicate_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0000824	M22- My0000825	M22- My0000826	M22- My0000827
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022	Apr 29, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	7.1
pH (off)	0.1	pH Units	5.0	5.1	5.0	9.6
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	93	82	77
13C5-PFPeA (surr.)	1	%	116	106	96	90
13C5-PFHxA (surr.)	1	%	102	90	79	79
13C4-PFHpA (surr.)	1	%	101	99	91	87
13C8-PFOA (surr.)	1	%	115	31	39	57
13C5-PFNA (surr.)	1	%	102	94	82	89
13C6-PFDA (surr.)	1	%	71	67	74	66
13C2-PFUnDA (surr.)	1	%	87	73	78	87
13C2-PFDoDA (surr.)	1	%	77	76	84	101
13C2-PFTeDA (surr.)	1	%	30	47	92	102
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	79	72	76
D3-N-MeFOSA (surr.)	1	%	95	113	117	122
D5-N-EtFOSA (surr.)	1	%	102	123	127	132
D7-N-MeFOSE (surr.)	1	%	81	85	82	79
D9-N-EtFOSE (surr.)	1	%	77	83	82	79
D5-N-EtFOSAA (surr.)	1	%	44	82	51	62
D3-N-MeFOSAA (surr.)	1	%	44	52	55	53

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF	SX_IB_202204 29_08_13_SS _Triplicate_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0000824	M22- My0000825	M22- My0000826	M22- My0000827
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022	Apr 29, 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	%	120	28	32	52
18O2-PFHxS (surr.)	1	%	97	84	74	74
13C8-PFOS (surr.)	1	%	76	77	73	76
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	%	110	123	118	83
13C2-6:2 FTSA (surr.)	1	%	88	128	92	74
13C2-8:2 FTSA (surr.)	1	%	93	108	109	79
13C2-10:2 FTSA (surr.)	1	%	59	70	93	94
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_202204 29_12_06_SS _Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EUF	SX_OB_20220 429_19_56_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- My0000828	M22- My0000829	M22- My0000830	M22- My0000831
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	7.1	7.1	7.1	7.1
pH (off)	0.1	pH Units	9.6	8.8	8.7	8.7

Client Sample ID			SX_IB_202204 29_12_06_SS_ Primary_EUF	SX_OB_20220 429_16_11_SS_ Primary_EUF	SX_OB_20220 429_16_13_SS_ Duplicate_EU F	SX_OB_20220 429_19_56_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- My0000828	M22- My0000829	M22- My0000830	M22- My0000831
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	%	94	96	91	97
13C5-PFPeA (surr.)	1	%	105	111	98	112
13C5-PFHxA (surr.)	1	%	94	92	84	105
13C4-PFHpA (surr.)	1	%	99	109	103	95
13C8-PFOA (surr.)	1	%	58	72	88	106
13C5-PFNA (surr.)	1	%	97	116	101	91
13C6-PFDA (surr.)	1	%	69	82	69	74
13C2-PFUnDA (surr.)	1	%	88	106	78	71
13C2-PFDoDA (surr.)	1	%	94	102	89	74
13C2-PFTeDA (surr.)	1	%	85	55	56	31
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	97	83	71
D3-N-MeFOSA (surr.)	1	%	124	129	115	94
D5-N-EtFOSA (surr.)	1	%	135	124	116	92
D7-N-MeFOSE (surr.)	1	%	73	90	79	77
D9-N-EtFOSE (surr.)	1	%	79	89	81	72
D5-N-EtFOSAA (surr.)	1	%	58	84	48	66
D3-N-MeFOSAA (surr.)	1	%	55	65	44	49
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

Client Sample ID			SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS Duplicate_EU F	SX_OB_20220 429_19_56_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- My0000828	M22- My0000829	M22- My0000830	M22- My0000831
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
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	%	57	59	45	125
18O2-PFHxS (surr.)	1	%	82	92	87	83
13C8-PFOS (surr.)	1	%	73	85	79	65
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	122	84	100
13C2-6:2 FTSA (surr.)	1	%	77	95	80	82
13C2-8:2 FTSA (surr.)	1	%	95	142	134	87
13C2-10:2 FTSA (surr.)	1	%	88	98	80	107
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 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0000832	M22- My0000833
Date Sampled			Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid ^{C01}		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	7.1	7.1
pH (off)	0.1	pH Units	8.8	8.8
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

Client Sample ID			SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0000832	M22- My0000833
Date Sampled			Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
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 (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	102	103
13C5-PFPeA (surr.)	1	%	121	120
13C5-PFHxA (surr.)	1	%	105	106
13C4-PFHpA (surr.)	1	%	118	118
13C8-PFOA (surr.)	1	%	36	34
13C5-PFNA (surr.)	1	%	125	121
13C6-PFDA (surr.)	1	%	105	111
13C2-PFUnDA (surr.)	1	%	113	121
13C2-PFDoDA (surr.)	1	%	117	110
13C2-PFTTeDA (surr.)	1	%	55	47
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	%	99	102
D3-N-MeFOSA (surr.)	1	%	120	120
D5-N-EtFOSA (surr.)	1	%	115	114
D7-N-MeFOSE (surr.)	1	%	103	94
D9-N-EtFOSE (surr.)	1	%	93	94
D5-N-EtFOSAA (surr.)	1	%	70	92
D3-N-MeFOSAA (surr.)	1	%	91	62
Perfluoroalkyl sulfonic acids (PFSA)				
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	%	41	58
18O2-PFHxS (surr.)	1	%	95	93
13C8-PFOS (surr.)	1	%	89	98

Client Sample ID			SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0000832	M22- My0000833
Date Sampled			Apr 30, 2022	Apr 30, 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
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	%	158	151
13C2-6:2 FTSA (surr.)	1	%	130	137
13C2-8:2 FTSA (surr.)	1	%	140	143
13C2-10:2 FTSA (surr.)	1	%	131	131
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 02, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 02, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 02, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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_20220429_08_13_SS_Triplicate_EU F	Apr 29, 2022	8:13AM	Soil	M22-My0000811		X	X	X
2	SX_IB_20220429_12_06_SS_Primary_EUF	Apr 29, 2022	12:06PM	Soil	M22-My0000812		X	X	X
3	SX_OB_20220429_16_11_SS_Primary_EU F	Apr 29, 2022	4:11PM	Soil	M22-My0000813		X	X	X
4	SX_OB_20220	Apr 29, 2022	4:13PM	Soil	M22-		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	429_16_13_S S_Duplicate_EUF				My0000814				
5	SX_OB_20220 429_16_30_S R_Rinsate_EUF	Apr 29, 2022	4:30PM	Water	M22- My0000815			X	
6	SX_OB_20220 429_16_31_S B_Blank_EUF	Apr 29, 2022	4:31PM	Water	M22- My0000816			X	
7	SX_OB_20220 429_19_56_S S_Primary_EUF	Apr 29, 2022	7:56PM	Soil	M22- My0000817		X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220430060211-Eurofin-12
Project ID: JC0927

Order No.:
Report #: 884110
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 8:55 AM
Due: May 9, 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									
8	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	Soil	M22-My0000818		X	X	X
9	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	Soil	M22-My0000819		X	X	X
10	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - pH 5.0	M22-My0000820	X		X	
11	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - pH 5.0	M22-My0000821	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF								
12	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - pH 5.0	M22-My0000822	X		X	
13	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - pH 5.0	M22-My0000823	X		X	
14	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0000824	X		X	
15	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220430060211-Eurofin-12
Project ID: JC0927

Order No.:
Report #: 884110
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 8:55 AM
Due: May 9, 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									
15	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - pH 5.0	M22-My0000825				
16	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - pH 5.0	M22-My0000826	X		X	
17	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - Reagent Water	M22-My0000827	X		X	
18	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - Reagent	M22-My0000828	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF			Water					
19	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - Reagent Water	M22-My0000829	X		X	
20	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - Reagent Water	M22-My0000830	X		X	
21	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0000831	X		X	
22	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
22	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - Reagent Water	M22-My0000832				
23	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - Reagent Water	M22-My0000833	X		X	
Test Counts						14	7	23	7

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 (PFSA)						
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)	%	123		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	112		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	108		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	100		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	109		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	105		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	85		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	115		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	112		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	107		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	122		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	%	119			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	126			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	114			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	108			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	117			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	107			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	80			50-150	Pass			
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)	%	99			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	110			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	123			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	125			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	106			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	111			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	112			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	98			50-150	Pass			
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	116			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	128			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	114			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	123			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-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0000822	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-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0000822	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-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0000822	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0000822	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0000829	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-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0000829	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0000829	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0000829	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
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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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 **884110-S**
Project name **20220430060211-Eurofin-12**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS Primary_EUF	SX_OB_20220 429_16_13_SS Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	%	109	111	79	81
Toluene-d8 (surr.)	1	%	116	118	76	80
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	%	72	76	70	68
p-Terphenyl-d14 (surr.)	1	%	74	115	58	66
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	%	101	138	123	104
Tetrachloro-m-xylene (surr.)	1	%	119	104	102	76

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	101	138	123	104
Tetrachloro-m-xylene (surr.)	1	%	119	104	102	76
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	%	int	31	32	31
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	380	380	340	430
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.5	9.2	8.2	8.0
% Moisture						
% Moisture	1	%	35	31	32	32
Heavy Metals						
Arsenic	2	mg/kg	26	30	55	59
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	120	160	150
Copper	5	mg/kg	100	84	74	73
Lead	5	mg/kg	6.8	6.0	6.5	7.4
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	240	230	240	230
Selenium	2	mg/kg	2.1	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	160	160	160	160
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	%	78	80	78	78
13C5-PFPeA (surr.)	1	%	85	86	81	84
13C5-PFHxA (surr.)	1	%	73	75	68	71
13C4-PFHpA (surr.)	1	%	70	78	73	66
13C8-PFOA (surr.)	1	%	81	78	72	80
13C5-PFNA (surr.)	1	%	69	70	57	79
13C6-PFDA (surr.)	1	%	57	93	78	74
13C2-PFUnDA (surr.)	1	%	90	95	91	87
13C2-PFDoDA (surr.)	1	%	101	102	98	86
13C2-PFTeDA (surr.)	1	%	81	99	94	99
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	%	81	87	87	83
D3-N-MeFOSA (surr.)	1	%	110	82	108	82
D5-N-EtFOSA (surr.)	1	%	120	114	106	116
D7-N-MeFOSE (surr.)	1	%	66	78	79	81
D9-N-EtFOSE (surr.)	1	%	93	93	83	90
D5-N-EtFOSAA (surr.)	1	%	119	91	119	115
D3-N-MeFOSAA (surr.)	1	%	143	128	121	123

Client Sample ID			SX_IB_202204 29_08_13_SS Triplicate_EUF	SX_IB_202204 29_12_06_SS Primary_EUF	SX_OB_20220 429_16_11_SS _Primary_EUF	SX_OB_20220 429_16_13_SS _Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0000811	M22- My0000812	M22- My0000813	M22- My0000814
Date Sampled			Apr 29, 2022	Apr 29, 2022	Apr 29, 2022	Apr 29, 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	%	66	79	69	69
18O2-PFHxS (surr.)	1	%	63	73	65	75
13C8-PFOS (surr.)	1	%	119	85	63	123
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	%	56	62	69	52
13C2-6:2 FTSA (surr.)	1	%	56	80	65	62
13C2-8:2 FTSA (surr.)	1	%	69	122	107	71
13C2-10:2 FTSA (surr.)	1	%	125	95	103	140
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_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
Volatile Organics					
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Volatile Organics					
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Volatile Organics					
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	119	70	73
Toluene-d8 (surr.)	1	%	125	70	75
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	59	73	123
p-Terphenyl-d14 (surr.)	1	%	56	84	77

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	67	75	89
Tetrachloro-m-xylene (surr.)	1	%	67	107	105
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	67	75	89
Tetrachloro-m-xylene (surr.)	1	%	67	107	105
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	int	67	43
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Chromium (hexavalent)					
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1
Cyanide (total)					
Cyanide (total)	5	mg/kg	< 5	< 5	< 5
Fluoride (Total)					
Fluoride (Total)	100	mg/kg	440	420	350
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	12	8.5
% Moisture					
% Moisture	1	%	33	32	30
Heavy Metals					
Arsenic	2	mg/kg	540	34	43
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	130	180	170
Copper	5	mg/kg	99	86	75
Lead	5	mg/kg	8.5	< 5	5.6
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	5.8	< 5	< 5
Nickel	5	mg/kg	220	260	250
Selenium	2	mg/kg	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10
Zinc	5	mg/kg	160	160	170
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	76	77	78
13C5-PFPeA (surr.)	1	%	82	65	71
13C5-PFHxA (surr.)	1	%	73	65	65

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
13C4-PFHpA (surr.)	1	%	69	66	70
13C8-PFOA (surr.)	1	%	76	57	68
13C5-PFNA (surr.)	1	%	69	69	61
13C6-PFDA (surr.)	1	%	95	67	62
13C2-PFUnDA (surr.)	1	%	77	87	106
13C2-PFDoDA (surr.)	1	%	106	94	103
13C2-PFTeDA (surr.)	1	%	86	96	92
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	84	81	94
D3-N-MeFOSA (surr.)	1	%	96	92	90
D5-N-EtFOSA (surr.)	1	%	110	121	115
D7-N-MeFOSE (surr.)	1	%	65	69	87
D9-N-EtFOSE (surr.)	1	%	96	81	87
D5-N-EtFOSAA (surr.)	1	%	63	140	137
D3-N-MeFOSAA (surr.)	1	%	120	107	148
Perfluoroalkyl sulfonic acids (PFSA)					
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	75	55	64
18O2-PFHxS (surr.)	1	%	67	67	68
13C8-PFOS (surr.)	1	%	118	57	54
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	88	98	92
13C2-6:2 FTSA (surr.)	1	%	60	72	60

Client Sample ID			SX_OB_20220 429_19_56_SS _Primary_EUF	SX_OB_20220 430_00_00_SS _Primary_EUF	SX_OB_20220 430_03_59_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M22- My0000817	M22- My0000818	M22- My0000819
Date Sampled			Apr 29, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit			
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
13C2-8:2 FTSA (surr.)	1	%	69	118	85
13C2-10:2 FTSA (surr.)	1	%	129	85	97
PFASs Summations					
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 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 02, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 02, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 02, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 02, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 02, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 02, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 02, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 02, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 02, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 02, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	May 02, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 03, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 03, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 02, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 02, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 02, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	Soil	M22-My0000811		X	X	X
2	SX_IB_20220429_12_06_SS_Primary_EUF	Apr 29, 2022	12:06PM	Soil	M22-My0000812		X	X	X
3	SX_OB_20220429_16_11_SS_Primary_EU_F	Apr 29, 2022	4:11PM	Soil	M22-My0000813		X	X	X
4	SX_OB_20220	Apr 29, 2022	4:13PM	Soil	M22-		X	X	X

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

Project Name: 20220430060211-Eurofin-12
Project ID: JC0927

Order No.:
Report #: 884110
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 8:55 AM
Due: May 9, 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									
	429_16_13_S S_Duplicate_EUF				My0000814				
5	SX_OB_20220 429_16_30_S R_Rinsate_EUF	Apr 29, 2022	4:30PM	Water	M22- My0000815			X	
6	SX_OB_20220 429_16_31_S B_Blank_EUF	Apr 29, 2022	4:31PM	Water	M22- My0000816			X	
7	SX_OB_20220 429_19_56_S S_Primary_EUF	Apr 29, 2022	7:56PM	Soil	M22- My0000817		X	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									
8	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	Soil	M22-My0000818		X	X	X
9	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	Soil	M22-My0000819		X	X	X
10	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - pH 5.0	M22-My0000820	X		X	
11	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - pH 5.0	M22-My0000821	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF								
12	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - pH 5.0	M22-My0000822	X		X	
13	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - pH 5.0	M22-My0000823	X		X	
14	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0000824	X		X	
15	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220430060211-Eurofin-12
Project ID: JC0927

Order No.:
Report #: 884110
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 8:55 AM
Due: May 9, 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									
15	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - pH 5.0	M22-My0000825				
16	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - pH 5.0	M22-My0000826	X		X	
17	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - Reagent Water	M22-My0000827	X		X	
18	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - Reagent	M22-My0000828	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF			Water					
19	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - Reagent Water	M22-My0000829	X		X	
20	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - Reagent Water	M22-My0000830	X		X	
21	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0000831	X		X	
22	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
22	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - Reagent Water	M22-My0000832				
23	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - Reagent Water	M22-My0000833	X		X	
Test Counts						14	7	23	7

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	%	102		70-130	Pass	
TRH C10-C14	%	104		70-130	Pass	
Naphthalene	%	71		70-130	Pass	
TRH C6-C10	%	101		70-130	Pass	
TRH >C10-C16	%	107		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	74		70-130	Pass	
1.1.1-Trichloroethane	%	78		70-130	Pass	
1.2-Dichlorobenzene	%	88		70-130	Pass	
1.2-Dichloroethane	%	74		70-130	Pass	
Benzene	%	87		70-130	Pass	
Ethylbenzene	%	100		70-130	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	99		70-130	Pass	
Toluene	%	88		70-130	Pass	
Trichloroethene	%	78		70-130	Pass	
Xylenes - Total*	%	100		70-130	Pass	
LCS - % Recovery						
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	102		70-130	Pass	
Acenaphthylene	%	121		70-130	Pass	
Anthracene	%	105		70-130	Pass	
Benz(a)anthracene	%	90		70-130	Pass	
Benzo(a)pyrene	%	122		70-130	Pass	
Benzo(b&i)fluoranthene	%	102		70-130	Pass	
Benzo(g,h,i)perylene	%	102		70-130	Pass	
Benzo(k)fluoranthene	%	126		70-130	Pass	
Chrysene	%	106		70-130	Pass	
Dibenz(a,h)anthracene	%	86		70-130	Pass	
Fluoranthene	%	88		70-130	Pass	
Fluorene	%	107		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	102		70-130	Pass	
Naphthalene	%	107		70-130	Pass	
Phenanthrene	%	81		70-130	Pass	
Pyrene	%	75		70-130	Pass	
LCS - % Recovery						
Organochlorine Pesticides						
Chlordanes - Total	%	102		70-130	Pass	
4,4'-DDD	%	123		70-130	Pass	
4,4'-DDE	%	106		70-130	Pass	
4,4'-DDT	%	91		70-130	Pass	
a-HCH	%	87		70-130	Pass	
Aldrin	%	101		70-130	Pass	
b-HCH	%	109		70-130	Pass	
d-HCH	%	104		70-130	Pass	
Dieldrin	%	102		70-130	Pass	
Endosulfan I	%	106		70-130	Pass	
Endosulfan II	%	94		70-130	Pass	
Endosulfan sulphate	%	98		70-130	Pass	
Endrin	%	99		70-130	Pass	
Endrin aldehyde	%	111		70-130	Pass	
Endrin ketone	%	94		70-130	Pass	
g-HCH (Lindane)	%	87		70-130	Pass	
Heptachlor	%	100		70-130	Pass	
Heptachlor epoxide	%	102		70-130	Pass	
Hexachlorobenzene	%	109		70-130	Pass	
Methoxychlor	%	90		70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls						
Aroclor-1260	%	104		70-130	Pass	
LCS - % Recovery						
Phenols (Halogenated)						
2-Chlorophenol	%	92		25-140	Pass	
2,4-Dichlorophenol	%	100		25-140	Pass	
2,4,5-Trichlorophenol	%	78		25-140	Pass	
2,4,6-Trichlorophenol	%	99		25-140	Pass	
2,6-Dichlorophenol	%	60		25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	84		25-140	Pass	
Pentachlorophenol	%	61		25-140	Pass	
Tetrachlorophenols - Total	%	34		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	%	34		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	31		25-140	Pass	
2-Nitrophenol	%	100		25-140	Pass	
2,4-Dimethylphenol	%	88		25-140	Pass	
2,4-Dinitrophenol	%	53		25-140	Pass	
2-Methylphenol (o-Cresol)	%	80		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	106		25-140	Pass	
4-Nitrophenol	%	45		25-140	Pass	
Dinoseb	%	55		25-140	Pass	
Phenol	%	79		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	92		70-130	Pass	
Cyanide (total)	%	116		70-130	Pass	
Fluoride (Total)	%	103		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	98		80-120	Pass	
Cadmium	%	97		80-120	Pass	
Chromium	%	111		80-120	Pass	
Copper	%	102		80-120	Pass	
Lead	%	111		80-120	Pass	
Mercury	%	99		80-120	Pass	
Molybdenum	%	107		80-120	Pass	
Nickel	%	99		80-120	Pass	
Selenium	%	96		80-120	Pass	
Silver	%	100		80-120	Pass	
Tin	%	109		80-120	Pass	
Zinc	%	97		80-120	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	120		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	92		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	91		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	93		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	102		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	103		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	92		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	105		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	109		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	98		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	101		50-150	Pass	
LCS - % Recovery						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	%	95		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	137		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	89		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	101		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	97		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	107		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	83			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	85			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	106			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	111			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	96			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	94			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	117			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	89			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	117			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	98			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	101			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	94			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	86			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-Ap0055328	NCP	%	110		70-130	Pass	
TRH >C10-C16	M22-Ap0055328	NCP	%	113		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-Ap0047241	NCP	%	111		70-130	Pass	
Acenaphthylene	M22-Ap0047241	NCP	%	117		70-130	Pass	
Anthracene	M22-Ap0047241	NCP	%	94		70-130	Pass	
Benz(a)anthracene	M22-Ap0047241	NCP	%	85		70-130	Pass	
Benzo(a)pyrene	M22-Ap0047241	NCP	%	95		70-130	Pass	
Benzo(b&i)fluoranthene	M22-Ap0047241	NCP	%	82		70-130	Pass	
Benzo(g,h,i)perylene	M22-Ap0047241	NCP	%	96		70-130	Pass	
Benzo(k)fluoranthene	M22-Ap0047241	NCP	%	82		70-130	Pass	
Chrysene	M22-Ap0047241	NCP	%	86		70-130	Pass	
Dibenz(a,h)anthracene	M22-Ap0047241	NCP	%	95		70-130	Pass	
Fluoranthene	M22-Ap0047241	NCP	%	90		70-130	Pass	
Fluorene	M22-Ap0047241	NCP	%	103		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-Ap0047241	NCP	%	108		70-130	Pass	
Naphthalene	M22-Ap0047241	NCP	%	110		70-130	Pass	
Phenanthrene	M22-Ap0047241	NCP	%	77		70-130	Pass	
Pyrene	M22-Ap0047241	NCP	%	89		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-Ap0047241	NCP	%	82		30-130	Pass	
2,4-Dichlorophenol	M22-Ap0047241	NCP	%	111		30-130	Pass	
2,4,5-Trichlorophenol	M22-Ap0047241	NCP	%	51		30-130	Pass	
2,4,6-Trichlorophenol	M22-Ap0047241	NCP	%	53		30-130	Pass	
2,6-Dichlorophenol	M22-Ap0047241	NCP	%	63		30-130	Pass	
4-Chloro-3-methylphenol	M22-Ap0047241	NCP	%	95		30-130	Pass	
Pentachlorophenol	M22-Ap0047241	NCP	%	103		30-130	Pass	
Tetrachlorophenols - Total	M22-Ap0047241	NCP	%	40		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-Ap0047241	NCP	%	42		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-Ap0047241	NCP	%	100		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2-Nitrophenol	M22-Ap0047241	NCP	%	99		30-130	Pass	
2,4-Dimethylphenol	M22-Ap0047241	NCP	%	87		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-Ap0047241	NCP	%	83		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-Ap0047241	NCP	%	107		30-130	Pass	
4-Nitrophenol	M22-Ap0047241	NCP	%	50		30-130	Pass	
Dinoseb	M22-Ap0047241	NCP	%	47		30-130	Pass	
Phenol	M22-Ap0047241	NCP	%	89		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M22-Ap0054479	NCP	%	127		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-My0001690	NCP	%	97		75-125	Pass	
Cadmium	M22-My0001690	NCP	%	91		75-125	Pass	
Chromium	M22-My0001692	NCP	%	102		75-125	Pass	
Copper	M22-My0001690	NCP	%	95		75-125	Pass	
Lead	M22-My0001690	NCP	%	103		75-125	Pass	
Mercury	M22-My0001690	NCP	%	114		75-125	Pass	
Molybdenum	M22-My0001690	NCP	%	123		75-125	Pass	
Nickel	M22-My0001690	NCP	%	80		75-125	Pass	
Selenium	M22-My0001690	NCP	%	97		75-125	Pass	
Silver	M22-My0001690	NCP	%	92		75-125	Pass	
Tin	M22-My0001690	NCP	%	127		75-125	Fail	Q08
Zinc	M22-My0001690	NCP	%	74		75-125	Fail	Q08
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-My0000812	CP	%	91		70-130	Pass	
Naphthalene	M22-My0000812	CP	%	76		70-130	Pass	
TRH C6-C10	M22-My0000812	CP	%	90		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1,1-Dichloroethene	M22-My0000812	CP	%	75		70-130	Pass	
1,1,1-Trichloroethane	M22-My0000812	CP	%	85		70-130	Pass	
1,2-Dichlorobenzene	M22-My0000812	CP	%	76		70-130	Pass	
1,2-Dichloroethane	M22-My0000812	CP	%	85		70-130	Pass	
Benzene	M22-My0000812	CP	%	78		70-130	Pass	
Ethylbenzene	M22-My0000812	CP	%	90		70-130	Pass	
m&p-Xylenes	M22-My0000812	CP	%	90		70-130	Pass	
o-Xylene	M22-My0000812	CP	%	91		70-130	Pass	
Toluene	M22-My0000812	CP	%	81		70-130	Pass	
Trichloroethene	M22-My0000812	CP	%	82		70-130	Pass	
Xylenes - Total*	M22-My0000812	CP	%	90		70-130	Pass	
Spike - % Recovery								
				Result 1				
Fluoride (Total)	M22-My0000812	CP	%	77		70-130	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0000813	CP	%	92		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0000813	CP	%	88		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0000813	CP	%	95		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0000813	CP	%	93		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0000813	CP	%	102		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0000813	CP	%	118		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0000813	CP	%	71		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroundecanoic acid (PFUnDA)	M22-My0000813	CP	%	98		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0000813	CP	%	97		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0000813	CP	%	99		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0000813	CP	%	103		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0000813	CP	%	94		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0000813	CP	%	91		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0000813	CP	%	79		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0000813	CP	%	83		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0000813	CP	%	100		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0000813	CP	%	65		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0000813	CP	%	117		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0000813	CP	%	86		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0000813	CP	%	138		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0000813	CP	%	130		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0000813	CP	%	108		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0000813	CP	%	112		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0000813	CP	%	58		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0000813	CP	%	115		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0000813	CP	%	126		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0000813	CP	%	104		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0000813	CP	%	99		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0000813	CP	%	88		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0000813	CP	%	82		50-150	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-My0000814	CP	%	69		70-130	Fail	Q08
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-My0000817	CP	%	98		70-130	Pass	
4,4'-DDD	M22-My0000817	CP	%	85		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDE	M22-My0000817	CP	%	117			70-130	Pass	
4.4'-DDT	M22-My0000817	CP	%	90			70-130	Pass	
a-HCH	M22-My0000817	CP	%	105			70-130	Pass	
Aldrin	M22-My0000817	CP	%	103			70-130	Pass	
b-HCH	M22-My0000817	CP	%	123			70-130	Pass	
d-HCH	M22-My0000817	CP	%	120			70-130	Pass	
Dieldrin	M22-My0000817	CP	%	91			70-130	Pass	
Endosulfan I	M22-My0000817	CP	%	106			70-130	Pass	
Endosulfan II	M22-My0000817	CP	%	109			70-130	Pass	
Endosulfan sulphate	M22-My0000817	CP	%	100			70-130	Pass	
Endrin	M22-My0000817	CP	%	82			70-130	Pass	
Endrin aldehyde	M22-My0000817	CP	%	123			70-130	Pass	
Endrin ketone	M22-My0000817	CP	%	91			70-130	Pass	
g-HCH (Lindane)	M22-My0000817	CP	%	102			70-130	Pass	
Heptachlor	M22-My0000817	CP	%	91			70-130	Pass	
Heptachlor epoxide	M22-My0000817	CP	%	88			70-130	Pass	
Hexachlorobenzene	M22-My0000817	CP	%	96			70-130	Pass	
Methoxychlor	M22-My0000817	CP	%	85			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	M22-Ap0053093	NCP	%	110			70-130	Pass	
Aroclor-1260	M22-Ap0053093	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2.4-Dinitrophenol	M22-Ap0053004	NCP	%	51			30-130	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-Ap0060256	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Ap0060256	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
2-Propanone (Acetone)	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-Ap0060256	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-Ap0060256	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-Ap0060256	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-Ap0060256	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-Ap0060256	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-Ap0060256	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-Ap0060256	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-My0000811	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-My0000811	CP	mg/kg	380	480	23	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0000725	NCP	pH Units	7.0	6.9	pass	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0001690	NCP	mg/kg	16	16	2.0	30%	Pass
Cadmium	M22-My0001690	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0001690	NCP	mg/kg	120	120	2.0	30%	Pass
Copper	M22-My0001690	NCP	mg/kg	41	43	3.0	30%	Pass
Lead	M22-My0001690	NCP	mg/kg	40	41	4.0	30%	Pass
Mercury	M22-My0001690	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0001690	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0001690	NCP	mg/kg	88	90	3.0	30%	Pass
Selenium	M22-My0001690	NCP	mg/kg	3.3	3.4	3.0	30%	Pass
Silver	M22-My0001690	NCP	mg/kg	< 2	< 2	<1	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Tin	M22-My0001690	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0001690	NCP	mg/kg	64	65	2.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0058514	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0058514	NCP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0058514	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0058514	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-My0000812	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0000812	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0000812	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-My0000812	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0000812	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0000812	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0000812	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-My0000817	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0000817	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0000817	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-My0000817	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0000817	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0000817	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&i)fluoranthene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
b-HCH	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0000817	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0000817	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0000817	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0000817	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0000817	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0000817	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0000817	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0000817	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0000817	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0000817	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0000817	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0000817	CP	mg/kg	< 1	< 1	<1	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M22-My0000818	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0000818	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0000818	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M22-My0000818	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0000818	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0000818	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-My0000818	CP	%	32	30	5.0	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).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Michael Cassidy	Analytical Services Manager
Scott Beddoes	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)
Edward Lee	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)
Caitlin Breeze	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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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 **884110-W**
Project name **20220430060211-Eurofin-12**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_OB_20220 429_16_30_SR _Rinsate_EUF	SX_OB_20220 429_16_31_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0000815	M22- My0000816
Date Sampled			Apr 29, 2022	Apr 29, 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 (PFTTrDA) ^{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	%	75	78
13C5-PFPeA (surr.)	1	%	95	94
13C5-PFHxA (surr.)	1	%	87	89
13C4-PFHpA (surr.)	1	%	75	85
13C8-PFOA (surr.)	1	%	78	83
13C5-PFNA (surr.)	1	%	56	71
13C6-PFDA (surr.)	1	%	58	62
13C2-PFUnDA (surr.)	1	%	41	53
13C2-PFDoDA (surr.)	1	%	36	52
13C2-PFTeDA (surr.)	1	%	61	83
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	%	61	63

Client Sample ID			SX_OB_20220 429_16_30_SR _Rinsate_EUF	SX_OB_20220 429_16_31_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0000815	M22- My0000816
Date Sampled			Apr 29, 2022	Apr 29, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	80	39
D5-N-EtFOSA (surr.)	1	%	85	29
D7-N-MeFOSE (surr.)	1	%	53	63
D9-N-EtFOSE (surr.)	1	%	87	86
D5-N-EtFOSAA (surr.)	1	%	52	71
D3-N-MeFOSAA (surr.)	1	%	43	55
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	%	129	131
18O2-PFHxS (surr.)	1	%	85	94
13C8-PFOS (surr.)	1	%	57	73
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	%	59	59
13C2-6:2 FTSA (surr.)	1	%	56	69
13C2-8:2 FTSA (surr.)	1	%	57	69
13C2-10:2 FTSA (surr.)	1	%	64	92
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 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 02, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220430060211-Eurofin-12
Project ID: JC0927

Order No.:
Report #: 884110
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 8:55 AM
Due: May 9, 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 (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									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220429_08_13_SS_Triplicate_EU F	Apr 29, 2022	8:13AM	Soil	M22-My0000811		X	X	X
2	SX_IB_20220429_12_06_SS_Primary_EUF	Apr 29, 2022	12:06PM	Soil	M22-My0000812		X	X	X
3	SX_OB_20220429_16_11_S_S_Primary_EU F	Apr 29, 2022	4:11PM	Soil	M22-My0000813		X	X	X
4	SX_OB_20220	Apr 29, 2022	4:13PM	Soil	M22-		X	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									
	429_16_13_S S_Duplicate_EUF				My0000814				
5	SX_OB_20220 429_16_30_S R_Rinsate_EUF	Apr 29, 2022	4:30PM	Water	M22- My0000815			X	
6	SX_OB_20220 429_16_31_S B_Blank_EUF	Apr 29, 2022	4:31PM	Water	M22- My0000816			X	
7	SX_OB_20220 429_19_56_S S_Primary_EUF	Apr 29, 2022	7:56PM	Soil	M22- My0000817		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
8	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	Soil	M22-My0000818		X	X	X
9	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	Soil	M22-My0000819		X	X	X
10	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - pH 5.0	M22-My0000820	X		X	
11	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - pH 5.0	M22-My0000821	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
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Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF								
12	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - pH 5.0	M22-My0000822	X		X	
13	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - pH 5.0	M22-My0000823	X		X	
14	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0000824	X		X	
15	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
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SA 5063
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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									
15	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - pH 5.0	M22-My0000825				
16	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - pH 5.0	M22-My0000826	X		X	
17	SX_IB_20220429_08_13_SS_Triplicate_EU_F	Apr 29, 2022	8:13AM	AUS Leachate - Reagent Water	M22-My0000827	X		X	
18	SX_IB_20220429_12_06_SS	Apr 29, 2022	12:06PM	AUS Leachate - Reagent	M22-My0000828	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
	_Primary_EUF			Water					
19	SX_OB_20220429_16_11_S_S_Primary_EUF	Apr 29, 2022	4:11PM	AUS Leachate - Reagent Water	M22-My0000829	X		X	
20	SX_OB_20220429_16_13_S_S_Duplicate_EUF	Apr 29, 2022	4:13PM	AUS Leachate - Reagent Water	M22-My0000830	X		X	
21	SX_OB_20220429_19_56_S_S_Primary_EUF	Apr 29, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0000831	X		X	
22	SX_OB_20220	Apr 30, 2022	12:00AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 8:55 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884110	Due:	May 9, 2022
Project Name:	20220430060211-Eurofin-12	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									
22	SX_OB_20220430_00_00_S_S_Primary_EU_F	Apr 30, 2022	12:00AM	AUS Leachate - Reagent Water	M22-My0000832				
23	SX_OB_20220430_03_59_S_S_Primary_EU_F	Apr 30, 2022	3:59AM	AUS Leachate - Reagent Water	M22-My0000833	X		X	
Test Counts						14	7	23	7

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<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

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

Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (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)	%	100		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	136		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	94		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	84		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	105		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	88		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	95		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	92		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	108		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	123		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	114			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	144			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	83			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	83			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	81			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	100			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	130			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	89			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	59			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	75			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	104			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	96			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	85			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	88			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	58			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	112			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	117			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	93			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	126			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-Ap0049645	NCP	%	122		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0049645	NCP	%	133		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0049645	NCP	%	73		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0049645	NCP	%	79		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0049645	NCP	%	89		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0049645	NCP	%	103		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0049645	NCP	%	81		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0049645	NCP	%	102		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0049645	NCP	%	87		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0049645	NCP	%	126		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0049645	NCP	%	113		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-Ap0049645	NCP	%	100		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0049645	NCP	%	121		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0049645	NCP	%	96		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0049645	NCP	%	100		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0049645	NCP	%	90		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-Ap0049645	NCP	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0049645	NCP	%	51			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0049645	NCP	%	84			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0049645	NCP	%	64			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0049645	NCP	%	77			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0049645	NCP	%	86			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0044637	NCP	%	74			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0049645	NCP	%	88			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0044637	NCP	%	55			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0049645	NCP	%	59			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-Ap0049645	NCP	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0049645	NCP	%	123			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0049645	NCP	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0049645	NCP	%	99			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-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0054055	NCP	ug/L	0.02	0.02	4.0	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0054055	NCP	ug/L	0.02	0.02	4.0	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0054055	NCP	ug/L	0.01	0.01	2.0	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0054055	NCP	ug/L	0.03	0.03	7.0	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0054055	NCP	ug/L	0.01	0.01	5.0	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0054055	NCP	ug/L	0.03	0.04	1.0	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0054055	NCP	ug/L	0.03	0.02	19	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0054055	NCP	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-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0054055	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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CHAIN OF CUSTODY RECORD

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02 9850 4600 - EnesSampleNSW@enviro.com

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07 3902 4600 - EnesSampleQLD@enviro.com

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Melbourne Laboratory
6 Mackay Road, Dandenong South VIC 3175
03 8564 5000 - EnesSampleVIC@enviro.com

Company		Project No		Project Manager		Project Name		Project Location		Project Details																					
AGON Environmental - Tunnel Spoil Testing		JC0927		Craig Trimbur		WGTP-Tunnel		Edgemoor		WGH + TB + DL + LR																					
Address		Project Name		Project Manager		Project Name		Project Location		Project Details																					
Unit H78, 63-65 Turner St, Port Melbourne VIC 3207		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Handed over by																					
Contact Name		Project Name		Project Manager		Project Name		Project Location		Project Details																					
Craig Trimbur David Lawson		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Email for invoice finance@agonenviro.com.au LabReports.TST@agonenviro.com.au																					
Phone No		Project Name		Project Manager		Project Name		Project Location		Project Details																					
+61 490 828 907 (Craig) +61 490 411 004 (David)		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Email for Results LabReports.TST@agonenviro.com.au agonenviro.com.au motherlab@results1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au																					
Special Directions		Project Name		Project Manager		Project Name		Project Location		Project Details																					
Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Containers 500mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL VOA vial 80mL PFAS BODIE Jar (Glass or HDPE) Other (please specify in Orderform)																					
Purchase Order		Project Name		Project Manager		Project Name		Project Location		Project Details																					
		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Required Turnaround Time (TAT) Standard (all in 1 day) - 1 day Overnight (reporting by Benji) - 1 day Same day - 1 day Other																					
Quote ID No		Project Name		Project Manager		Project Name		Project Location		Project Details																					
Agon WGTP TST		WGTP-Tunnel		EDD Forman		Ref: 20220602041931-Eurofin-21		Edgemoor		Sample Comments / Dangerous Goods Hazard Warning																					
Client Sample ID	Sampled Date/Time	Matrix	Method	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
SX_IB_20220430_07_62_SS_Triplicate_EUF	30/04/22	S	X	X	X	X	X																								
SX_IB_20220430_07_64_SS_Primary_EUF	30/04/22	S	X	X	X	X	X																								
SX_IB_20220430_07_66_SS_Primary_EUF	30/04/22	S																													
SX_IB_20220430_11_46_SS_Primary_EUF	30/04/22	S	X	X	X	X	X																								
SX_IB_20220430_11_50_SS_Primary_EUF	30/04/22	S	X	X	X	X	X																								
SX_IB_20220430_15_53_SS_Primary_EUF	30/04/22	S																													
SX_IB_20220430_15_58_SS_Primary_EUF	30/04/22	S	X	X	X	X	X																								
SX_IB_20220430_16_58_SS_Duplicate_EUF	30/04/22	S	X	X	X	X	X																								
SX_OB_20220430_20_03_SS_Primary_EUF	30/04/22	S	X	X	X	X	X																								
SX_OB_20220430_20_12_SR_Rimata_EUF	30/04/22	W					X																								
SX_OB_20220430_20_19_SS_Blank_EUF	30/04/22	W					X																								
SX_OB_20220601_00_09_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_OB_20220601_04_07_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_06_21_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_08_21_SS_Triplicate_EUF	1/06/22	S	X	X	X	X	X																								
SX_OB_20220601_08_26_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_12_16_SS_Primary_EUF	1/06/22	S																													
SX_IB_20220601_12_19_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_16_12_SS_Primary_EUF	1/06/22	S																													
SX_IB_20220601_16_19_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_OB_20220601_16_22_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_OB_20220601_16_23_SS_Duplicate_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_19_50_SS_Primary_EUF	1/06/22	S																													
SX_IB_20220601_19_58_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_23_52_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220601_23_59_SS_Primary_EUF	1/06/22	S	X	X	X	X	X																								
SX_IB_20220602_08_58_SS_Primary_EUF	2/06/22	S	X	X	X	X	X																								
SX_IB_20220602_04_07_SS_Primary_EUF	2/06/22	S																													

20.7
+ 0.2
20.9

884270
Joke

Method: GC/MS Delivered: Name: Cylo Signature: [Signature] Date: 2/5/22 Time: 11:00pm Temperature: 20.9

Received By: [Signature] Signature: [Signature] Date: 2/5/22 Time: 11:00pm Report No: 209

Callum McEwan

From: David Lawson <David.Lawson@agonenviro.com.au>
Sent: Monday, 2 May 2022 4:15 PM
To: Michael Cassidy; William OHaire
Cc: Callum McEwan; #AU_CAU001_EnviroSampleVic; Craig Trimbur
Subject: RE: COC not received for today's soils
Attachments: 20220502041931-Eurofin-21-Solid_00.xlsx

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.
Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Michael,

This should be the correct COC

David Lawson
Environmental Scientist

Agon Environmental
+61 4 9041 1004
David.Lawson@agonenviro.com.au

From: Michael Cassidy <MichaelCassidy@eurofins.com>
Sent: Monday, 2 May 2022 2:41 PM
To: David Lawson <David.Lawson@agonenviro.com.au>; William OHaire <William.OHaire@agonenviro.com.au>
Cc: Callum McEwan <CallumMcEwan@eurofins.com>; #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>; Craig Trimbur <Craig.Trimbur@eprisk.com.au>
Subject: COC not received for today's soils

Hi Dave,

We are yet to receive the COC for today's soil samples, can we please get this through ASAP?

Thanks,

Kind Regards,

Michael Cassidy

Analytical Services Manager

Eurofins Environment Testing

6 Monterey Road

Dandenong South VIC 3175

AUSTRALIA

Phone: 03 8564 5940

Mobile: 0498 700 069

Email : MichaelCassidy@eurofins.com

Website : environment.eurofins.com.au

CHAIN OF CUSTODY RECORD

Sydney Laboratory
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2056
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Montrose Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		AGON Environmental - Tunnel Spoil Testing			Project No		JC0927			Project Manager		Craig Trimbur				Sampler(s)		WOH + TB + DL + LR							
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207			Project Name		WGTP-Tunnel Ref: 20220502041931-Eurofin-21			EDD Format		ESdat, EQulS etc				Esdat <td colspan="3">Esdat</td>		Esdat							
Contact Name		Craig Trimbur David Lawson			<small>Where made an error, Amend and check "EUF" or "EUFH"</small> <small>SUITE code must be used to identify the Sample</small> Spoil Sample Preparation Suite WGTP-R1-TRH/PAH/Phenols/OCF/PCB/VOC/Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn) Cr6+ CN Total Fluoride/ pH PFAS Extended Suite - 0.1-5ug/kg ASLP PH 5 - PFAS 0.01-0.05 ug/l ASLP Reagent - PFAS 0.01-0.05ug/l	Email for Invoice		finance@agonenviro.com.au LabReports.TST@agonenviro.com.au						Email for Results		LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au									
Phone No		+61 400 826 907 (Craig) +61 490 411 004 (David)				Containers		500ml Plastic, 250ml Plastic, 125ml Plastic, 200ml Amber Glass, 40ml VOA vial, 500ml PFAS Bottle, Jar (Glass or HDPE), Other (Asbestos AS4684, WA Guidelines)						Required Turnaround Time (TAT)		Default will be 5 days if not ticked. Overnight (reporting by 9am) + Surcharge will apply Same day, 1 day, 2 days, 3 days, 5 days (Standard), Other									
Special Directions		Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with other sample receipt documentation.				Sampled Date/Time		dd/mm/yy hh:mm						Matrix		Solid (S), Water (W)									
Purchase Order						Quote ID No		Agon WGTP TST						No		Client Sample ID									
1	SX_IB_20220430_07_52_SS_Triplicate_EUF	30/04/22	S	X	X	X	X	X													1				
2	SX_IB_20220430_07_55_SS_Primary_EUF	30/04/22	S	X	X	X	X	X															1		
3	SX_IB_20220430_07_56_SS_Primary_EUF	30/04/22	S										X										1		
4	SX_IB_20220430_11_46_SS_Primary_EUF	30/04/22	S	X	X	X	X	X															1		
5	SX_IB_20220430_11_50_SS_Primary_EUF	30/04/22	S	X	X	X	X	X															1		
6	SX_IB_20220430_15_53_SS_Primary_EUF	30/04/22	S										X										1		
7	SX_IB_20220430_15_58_SS_Primary_EUF	30/04/22	S	X	X	X	X	X															1		
8	SX_IB_20220430_15_58_SS_Duplicate_EUF	30/04/22	S	X	X	X	X	X															1		
9	SX_OB_20220430_20_03_SS_Primary_EUF	30/04/22	S	X	X	X	X	X															1		
10	SX_OB_20220430_20_13_SR_Rinsate_EUF	30/04/22	W					X																	
11	SX_OB_20220430_20_13_SB_Blank_EUF	30/04/22	W					X																	
12	SX_OB_20220501_00_08_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
13	SX_OB_20220501_04_07_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
14	SX_IB_20220501_08_21_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
15	SX_IB_20220501_08_21_SS_Triplicate_EUF	1/05/22	S	X	X	X	X	X																1	
16	SX_OB_20220501_08_25_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
17	SX_IB_20220501_12_16_SS_Primary_EUF	1/05/22	S										X											1	
18	SX_IB_20220501_12_19_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
19	SX_IB_20220501_16_12_SS_Primary_EUF	1/05/22	S										X											1	
20	SX_IB_20220501_16_16_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
21	SX_OB_20220501_16_22_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
22	SX_OB_20220501_16_23_SS_Duplicate_EUF	1/05/22	S	X	X	X	X	X																1	
23	SX_IB_20220501_19_50_SS_Primary_EUF	1/05/22	S										X											1	
24	SX_IB_20220501_19_56_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
25	SX_IB_20220501_23_52_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
26	SX_IB_20220501_23_58_SS_Primary_EUF	1/05/22	S	X	X	X	X	X																1	
	SX_IB_20220502_03_56_SS_Primary_EUF	2/05/22	S	X	X	X	X	X																1	
27	SX_IB_20220502_04_07_SS_Primary_EUF	2/05/22	S										X											1	
Total Counts				20	20	22	20	20					6					2					26		
Method of Shipment		<input checked="" type="checkbox"/> Courier (#)			<input type="checkbox"/> Hand Delivered			<input type="checkbox"/> Postal			Name		Signature		Date		Time								
Laboratory Use Only		Received By			SYD BNE MEL PER ADL NTL DRW			Signature		Date		Time		Temperature											
Laboratory Use Only		Received By			SYD BNE MEL PER ADL NTL DRW			Signature		Date		Time		Report No											

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 **884270-L-V2**
Project name **20220502041931-Eurofin-21**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS _Primary_EUF	SX_IB_202204 30_11_50_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- My0001936	M22- My0001937	M22- My0001938	M22- My0001939
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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	6.4	5.0	5.0	5.0
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	%	114	113	116	119
13C5-PFPeA (surr.)	1	%	108	102	89	104
13C5-PFHxA (surr.)	1	%	70	77	69	71
13C4-PFHpA (surr.)	1	%	91	80	85	87
13C8-PFOA (surr.)	1	%	81	90	69	64
13C5-PFNA (surr.)	1	%	79	65	79	83
13C6-PFDA (surr.)	1	%	79	54	88	65
13C2-PFUnDA (surr.)	1	%	77	51	59	65
13C2-PFDoDA (surr.)	1	%	115	45	94	56
13C2-PFTeDA (surr.)	1	%	81	37	68	44
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

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS Primary_EUF	SX_IB_202204 30_11_50_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- My0001936	M22- My0001937	M22- My0001938	M22- My0001939
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
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	%	130	41	113	55
D3-N-MeFOSA (surr.)	1	%	100	29	81	29
D5-N-EtFOSA (surr.)	1	%	91	42	80	42
D7-N-MeFOSE (surr.)	1	%	115	33	75	45
D9-N-EtFOSE (surr.)	1	%	120	49	103	56
D5-N-EtFOSAA (surr.)	1	%	121	22	85	20
D3-N-MeFOSAA (surr.)	1	%	121	21	81	25
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	%	36	54	31	35
18O2-PFHxS (surr.)	1	%	95	89	89	97
13C8-PFOS (surr.)	1	%	79	68	80	82
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	62	95	82
13C2-6:2 FTSA (surr.)	1	%	68	59	93	72
13C2-8:2 FTSA (surr.)	1	%	109	79	132	115
13C2-10:2 FTSA (surr.)	1	%	112	32	78	38
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 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_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- My0001940	M22- My0001941	M22- My0001942	M22- My0001943
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.0	5.0	5.1	5.0
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	%	104	120	118	122
13C5-PFPeA (surr.)	1	%	100	112	81	121
13C5-PFHxA (surr.)	1	%	69	79	64	80
13C4-PFHpA (surr.)	1	%	74	90	86	86
13C8-PFOA (surr.)	1	%	99	110	61	101
13C5-PFNA (surr.)	1	%	62	80	94	71
13C6-PFDA (surr.)	1	%	59	77	80	62
13C2-PFUnDA (surr.)	1	%	58	52	85	48
13C2-PFDoDA (surr.)	1	%	82	78	140	66
13C2-PFTTeDA (surr.)	1	%	60	60	132	45
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	%	82	106	134	104
D3-N-MeFOSA (surr.)	1	%	59	61	102	104
D5-N-EtFOSA (surr.)	1	%	63	64	114	113
D7-N-MeFOSE (surr.)	1	%	79	99	126	100
D9-N-EtFOSE (surr.)	1	%	84	99	128	100
D5-N-EtFOSAA (surr.)	1	%	57	63	101	81
D3-N-MeFOSAA (surr.)	1	%	55	87	81	70

Client Sample ID			SX_OB_20220 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_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- My0001940	M22- My0001941	M22- My0001942	M22- My0001943
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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	%	67	63	27	75
18O2-PFHxS (surr.)	1	%	87	109	81	84
13C8-PFOS (surr.)	1	%	61	82	91	64
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	%	66	80	103	70
13C2-6:2 FTSA (surr.)	1	%	68	65	105	61
13C2-8:2 FTSA (surr.)	1	%	91	110	114	91
13C2-10:2 FTSA (surr.)	1	%	79	112	135	80
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 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS TriPLICATE_EUF	SX_OB_20220 501_08_25_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- My0001944	M22- My0001945	M22- My0001946	M22- My0001947
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.0
pH (off)	0.1	pH Units	4.9	5.0	5.0	5.2

Client Sample ID			SX_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_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- My0001944	M22- My0001945	M22- My0001946	M22- My0001947
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	106	120	118	88
13C5-PFPeA (surr.)	1	%	91	108	104	102
13C5-PFHxA (surr.)	1	%	66	71	72	81
13C4-PFHpA (surr.)	1	%	81	85	90	86
13C8-PFOA (surr.)	1	%	90	83	61	90
13C5-PFNA (surr.)	1	%	72	78	77	83
13C6-PFDA (surr.)	1	%	61	76	57	68
13C2-PFUnDA (surr.)	1	%	66	46	46	139
13C2-PFDoDA (surr.)	1	%	88	65	44	118
13C2-PFTeDA (surr.)	1	%	61	40	39	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	%	83	89	45	88
D3-N-MeFOSA (surr.)	1	%	50	103	27	101
D5-N-EtFOSA (surr.)	1	%	59	109	36	103
D7-N-MeFOSE (surr.)	1	%	79	83	44	75
D9-N-EtFOSE (surr.)	1	%	81	91	49	76
D5-N-EtFOSAA (surr.)	1	%	116	52	33	103
D3-N-MeFOSAA (surr.)	1	%	92	58	18	87
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 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_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- My0001944	M22- My0001945	M22- My0001946	M22- My0001947
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	47	46	35	63
18O2-PFHxS (surr.)	1	%	80	86	84	84
13C8-PFOS (surr.)	1	%	61	72	76	69
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	%	73	83	84	125
13C2-6:2 FTSA (surr.)	1	%	62	59	65	79
13C2-8:2 FTSA (surr.)	1	%	115	102	136	145
13C2-10:2 FTSA (surr.)	1	%	83	64	31	131
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 01_12_19_SS _Primary_EUF	SX_IB_202205 01_16_16_SS _Primary_EUF	SX_OB_20220 501_16_22_SS _Primary_EUF	SX_OB_20220 501_16_23_SS _Duplicate_EU F
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- My0001948	M22- My0001949	M22- My0001950	M22- My0001951
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.3	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

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
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- My0001948	M22- My0001949	M22- My0001950	M22- My0001951
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	94	86	92
13C5-PFPeA (surr.)	1	%	115	107	95	108
13C5-PFHxA (surr.)	1	%	96	94	87	84
13C4-PFHpA (surr.)	1	%	103	104	89	89
13C8-PFOA (surr.)	1	%	57	54	73	87
13C5-PFNA (surr.)	1	%	103	88	87	77
13C6-PFDA (surr.)	1	%	77	70	62	80
13C2-PFUnDA (surr.)	1	%	82	86	79	120
13C2-PFDoDA (surr.)	1	%	75	80	75	124
13C2-PFTeDA (surr.)	1	%	35	61	32	92
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	%	74	84	71	84
D3-N-MeFOSA (surr.)	1	%	109	117	103	81
D5-N-EtFOSA (surr.)	1	%	118	130	103	93
D7-N-MeFOSE (surr.)	1	%	84	84	73	72
D9-N-EtFOSE (surr.)	1	%	83	84	73	76
D5-N-EtFOSAA (surr.)	1	%	62	57	28	106
D3-N-MeFOSAA (surr.)	1	%	75	66	51	117
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	%	45	48	63	71
18O2-PFHxS (surr.)	1	%	84	82	80	89
13C8-PFOS (surr.)	1	%	74	74	74	64

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
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- My0001948	M22- My0001949	M22- My0001950	M22- My0001951
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	120	120	101	132
13C2-6:2 FTSA (surr.)	1	%	86	98	79	79
13C2-8:2 FTSA (surr.)	1	%	77	110	105	133
13C2-10:2 FTSA (surr.)	1	%	81	60	83	103
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 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_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- My0001952	M22- My0001953	M22- My0001954	M22- My0001955
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.4	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	%	80	82	90	83
13C5-PFPeA (surr.)	1	%	87	97	106	100
13C5-PFHxA (surr.)	1	%	80	80	86	77

Client Sample ID			SX_IB_202205 01_19_56_SS Primary_EUF	SX_IB_202205 01_23_52_SS Primary_EUF	SX_IB_202205 01_23_58_SS Primary_EUF	SX_IB_202205 02_03_56_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- My0001952	M22- My0001953	M22- My0001954	M22- My0001955
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	88	87	91	83
13C8-PFOA (surr.)	1	%	47	75	92	80
13C5-PFNA (surr.)	1	%	81	80	81	73
13C6-PFDA (surr.)	1	%	61	64	58	59
13C2-PFUnDA (surr.)	1	%	78	66	67	52
13C2-PFDoDA (surr.)	1	%	82	66	59	70
13C2-PFTeDA (surr.)	1	%	91	48	21	54
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	66	67	66
D3-N-MeFOSA (surr.)	1	%	105	108	98	100
D5-N-EtFOSA (surr.)	1	%	119	115	97	114
D7-N-MeFOSE (surr.)	1	%	81	75	72	68
D9-N-EtFOSE (surr.)	1	%	78	75	70	72
D5-N-EtFOSAA (surr.)	1	%	56	47	41	45
D3-N-MeFOSAA (surr.)	1	%	57	61	38	49
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	%	42	52	66	64
18O2-PFHxS (surr.)	1	%	70	77	88	82
13C8-PFOS (surr.)	1	%	62	63	67	62
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	%	98	94	91	84
13C2-6:2 FTSA (surr.)	1	%	79	50	54	43

Client Sample ID			SX_IB_20220501_19_56_SS_Primary_EUF	SX_IB_20220501_23_52_SS_Primary_EUF	SX_IB_20220501_23_58_SS_Primary_EUF	SX_IB_20220502_03_56_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-My0001952	M22-My0001953	M22-My0001954	M22-My0001955
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	60	76	51	57
13C2-10:2 FTSA (surr.)	1	%	71	58	46	57
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_20220430_07_52_SS_Triplicate_EUF	SX_IB_20220430_07_55_SS_Primary_EUF	SX_IB_20220430_11_46_SS_Primary_EUF	SX_IB_20220430_11_50_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-My0001956	M22-My0001957	M22-My0001958	M22-My0001959
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	5.0	5.0	9.5	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 (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	%	122	113	84	116
13C5-PFPeA (surr.)	1	%	127	127	77	109
13C5-PFHxA (surr.)	1	%	82	82	54	74
13C4-PFHpA (surr.)	1	%	87	88	66	85
13C8-PFOA (surr.)	1	%	86	109	62	97
13C5-PFNA (surr.)	1	%	94	82	65	76
13C6-PFDA (surr.)	1	%	86	83	80	88
13C2-PFUnDA (surr.)	1	%	71	75	70	66
13C2-PFDoDA (surr.)	1	%	106	120	112	83
13C2-PFTeDA (surr.)	1	%	75	79	109	57

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS Primary_EUF	SX_IB_202204 30_11_50_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- My0001956	M22- My0001957	M22- My0001958	M22- My0001959
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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	%	125	141	133	122
D3-N-MeFOSA (surr.)	1	%	140	126	65	148
D5-N-EtFOSA (surr.)	1	%	104	87	55	106
D7-N-MeFOSE (surr.)	1	%	95	68	71	62
D9-N-EtFOSE (surr.)	1	%	85	72	78	64
D5-N-EtFOSAA (surr.)	1	%	114	106	121	126
D3-N-MeFOSAA (surr.)	1	%	120	106	113	105
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	%	70	101	37	66
18O2-PFHxS (surr.)	1	%	100	105	86	89
13C8-PFOS (surr.)	1	%	89	83	78	84
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	%	71	57	69	76
13C2-6:2 FTSA (surr.)	1	%	64	53	51	71
13C2-8:2 FTSA (surr.)	1	%	149	89	84	109
13C2-10:2 FTSA (surr.)	1	%	100	119	97	92
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 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_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- My0001960	M22- My0001961	M22- My0001962	M22- My0001963
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	9.4	8.8	8.8	8.6
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	%	116	120	81	97
13C5-PFPeA (surr.)	1	%	108	121	89	101
13C5-PFHxA (surr.)	1	%	87	90	50	72
13C4-PFHpA (surr.)	1	%	91	94	73	79
13C8-PFOA (surr.)	1	%	119	124	69	107
13C5-PFNA (surr.)	1	%	79	80	84	67
13C6-PFDA (surr.)	1	%	78	81	89	72
13C2-PFUnDA (surr.)	1	%	55	69	85	50
13C2-PFDoDA (surr.)	1	%	84	95	129	72
13C2-PFTeDA (surr.)	1	%	68	67	114	56
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	146	129	118
D3-N-MeFOSA (surr.)	1	%	85	100	52	58
D5-N-EtFOSA (surr.)	1	%	62	84	59	58
D7-N-MeFOSE (surr.)	1	%	75	64	77	83
D9-N-EtFOSE (surr.)	1	%	71	75	78	62
D5-N-EtFOSAA (surr.)	1	%	106	142	139	84
D3-N-MeFOSAA (surr.)	1	%	99	128	124	103

Client Sample ID			SX_OB_20220 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS _Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_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- My0001960	M22- My0001961	M22- My0001962	M22- My0001963
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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	%	104	99	26	81
18O2-PFHxS (surr.)	1	%	104	107	97	94
13C8-PFOS (surr.)	1	%	82	86	88	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	%	61	68	74	52
13C2-6:2 FTSA (surr.)	1	%	54	66	75	55
13C2-8:2 FTSA (surr.)	1	%	93	121	147	97
13C2-10:2 FTSA (surr.)	1	%	102	95	119	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_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _TriPLICATE_EUF	SX_OB_20220 501_08_25_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- My0001964	M22- My0001965	M22- My0001966	M22- My0001967
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	6.2	6.2	6.2	7.1
pH (off)	0.1	pH Units	8.8	8.8	9.6	8.8

Client Sample ID			SX_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_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- My0001964	M22- My0001965	M22- My0001966	M22- My0001967
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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 (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	%	115	101	103	94
13C5-PFPeA (surr.)	1	%	115	95	108	108
13C5-PFHxA (surr.)	1	%	79	68	75	97
13C4-PFHpA (surr.)	1	%	88	84	86	98
13C8-PFOA (surr.)	1	%	109	78	81	80
13C5-PFNA (surr.)	1	%	76	79	72	98
13C6-PFDA (surr.)	1	%	80	90	90	73
13C2-PFUnDA (surr.)	1	%	69	81	70	93
13C2-PFDoDA (surr.)	1	%	101	124	109	90
13C2-PFTTeDA (surr.)	1	%	76	102	95	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	%	144	120	148	86
D3-N-MeFOSA (surr.)	1	%	51	131	135	106
D5-N-EtFOSA (surr.)	1	%	54	100	106	101
D7-N-MeFOSE (surr.)	1	%	88	100	86	82
D9-N-EtFOSE (surr.)	1	%	70	92	90	79
D5-N-EtFOSAA (surr.)	1	%	101	126	104	54
D3-N-MeFOSAA (surr.)	1	%	80	127	99	47
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

Client Sample ID			SX_OB_20220501_04_07_SS_Primary_EUF	SX_IB_20220501_08_21_SS_Primary_EUF	SX_IB_20220501_08_21_SS_Triplicate_EUF	SX_OB_20220501_08_25_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-My0001964	M22-My0001965	M22-My0001966	M22-My0001967
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)s						
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	%	68	44	52	69
18O2-PFHxS (surr.)	1	%	92	100	94	89
13C8-PFOS (surr.)	1	%	82	85	83	86
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)s						
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	%	65	72	68	105
13C2-6:2 FTSA (surr.)	1	%	63	58	54	75
13C2-8:2 FTSA (surr.)	1	%	132	105	109	140
13C2-10:2 FTSA (surr.)	1	%	106	126	83	76
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_20220501_12_19_SS_Primary_EUF	SX_IB_20220501_16_16_SS_Primary_EUF	SX_OB_20220501_16_22_SS_Primary_EUF	SX_OB_20220501_16_23_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-My0001968	M22-My0001969	M22-My0001970	M22-My0001971
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	7.1	7.1	7.1	7.1
pH (off)	0.1	pH Units	9.6	9.6	9.1	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

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0001968	M22- My0001969	M22- My0001970	M22- My0001971
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	%	93	74	86	99
13C5-PFPeA (surr.)	1	%	113	83	98	116
13C5-PFHxA (surr.)	1	%	99	75	89	97
13C4-PFHpA (surr.)	1	%	108	76	86	98
13C8-PFOA (surr.)	1	%	63	49	84	90
13C5-PFNA (surr.)	1	%	100	73	88	91
13C6-PFDA (surr.)	1	%	84	51	72	69
13C2-PFUnDA (surr.)	1	%	89	43	75	91
13C2-PFDoDA (surr.)	1	%	85	27	87	79
13C2-PFTeDA (surr.)	1	%	42	12	83	36
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	%	82	51	70	78
D3-N-MeFOSA (surr.)	1	%	118	26	110	94
D5-N-EtFOSA (surr.)	1	%	121	21	115	102
D7-N-MeFOSE (surr.)	1	%	80	35	71	74
D9-N-EtFOSE (surr.)	1	%	77	31	74	73
D5-N-EtFOSAA (surr.)	1	%	59	30	52	36
D3-N-MeFOSAA (surr.)	1	%	45	29	63	51
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	%	53	51	79	78
18O2-PFHxS (surr.)	1	%	88	65	75	77
13C8-PFOS (surr.)	1	%	80	54	60	75

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0001968	M22- My0001969	M22- My0001970	M22- My0001971
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	114	89	87	104
13C2-6:2 FTSA (surr.)	1	%	88	69	65	85
13C2-8:2 FTSA (surr.)	1	%	118	49	93	107
13C2-10:2 FTSA (surr.)	1	%	104	21	69	85
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 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_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- My0001972	M22- My0001973	M22- My0001974	M22- My0001975
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 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	7.1	7.1	7.1	7.1
pH (off)	0.1	pH Units	9.4	8.9	9.6	9.7
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 (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	97	98	115

Client Sample ID			SX_IB_202205 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_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- My0001972	M22- My0001973	M22- My0001974	M22- My0001975
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	115	117	116	133
13C5-PFHxA (surr.)	1	%	102	100	101	120
13C4-PFHpA (surr.)	1	%	114	109	112	133
13C8-PFOA (surr.)	1	%	74	59	71	71
13C5-PFNA (surr.)	1	%	109	97	115	119
13C6-PFDA (surr.)	1	%	88	81	93	92
13C2-PFUnDA (surr.)	1	%	112	94	94	119
13C2-PFDoDA (surr.)	1	%	106	95	91	118
13C2-PFTeDA (surr.)	1	%	64	39	47	60
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	91	96	106
D3-N-MeFOSA (surr.)	1	%	129	125	124	138
D5-N-EtFOSA (surr.)	1	%	136	119	116	145
D7-N-MeFOSE (surr.)	1	%	95	83	88	97
D9-N-EtFOSE (surr.)	1	%	94	79	86	97
D5-N-EtFOSAA (surr.)	1	%	95	46	51	45
D3-N-MeFOSAA (surr.)	1	%	70	51	66	51
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	%	51	52	77	58
18O2-PFHxS (surr.)	1	%	93	99	99	109
13C8-PFOS (surr.)	1	%	86	82	79	91

Client Sample ID			SX_IB_202205 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_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- My0001972	M22- My0001973	M22- My0001974	M22- My0001975
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 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	%	122	119	129	145
13C2-6:2 FTSA (surr.)	1	%	86	90	97	110
13C2-8:2 FTSA (surr.)	1	%	121	113	149	179
13C2-10:2 FTSA (surr.)	1	%	96	71	90	109
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 03, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 03, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 03, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	

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Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_IB_20220430_07_52_SS_Triplicate_EU F	Apr 30, 2022	7:52AM	Soil	M22-My0001914			X	X	X
2	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	Soil	M22-My0001915			X	X	X
3	SX_OB_20220430_11_46_S_S_Primary_EU F	Apr 30, 2022	11:46AM	Soil	M22-My0001916			X	X	X
4	SX_IB_202204	Apr 30, 2022	11:50AM	Soil	M22-			X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
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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										
	30_11_50_SS _Primary_EUF				My0001917					
5	SX_OB_20220 430_15_58_S S_Primary_EU F	Apr 30, 2022	3:58PM	Soil	M22- My0001918			X	X	X
6	SX_OB_20220 430_15_58_S S_Duplicate_E UF	Apr 30, 2022	3:58PM	Soil	M22- My0001919			X	X	X
7	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	Soil	M22- My0001920			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						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										
8	SX_OB_20220430_20_13_S R_Rinsate_EU F	Apr 30, 2022	8:13PM	Water	M22-My0001921				X	
9	SX_OB_20220430_20_13_S B_Blank_EUF	Apr 30, 2022	8:13PM	Water	M22-My0001922				X	
10	SX_OB_20220501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	Soil	M22-My0001923			X	X	X
11	SX_OB_20220501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	Soil	M22-My0001924			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										
	F									
12	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	Soil	M22-My0001925			X	X	X
13	SX_IB_20220501_08_21_SS_Triplicate_EUF	May 01, 2022	8:21AM	Soil	M22-My0001926			X	X	X
14	SX_OB_20220501_08_25_S_S_Primary_EUF	May 01, 2022	8:25AM	Soil	M22-My0001927			X	X	X
15	SX_IB_20220501_12_19_SS	May 01, 2022	12:19PM	Soil	M22-My0001928			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										
	01_12_19_SS _Primary_EUF				My0001928					
16	SX_IB_202205 01_16_16_SS _Primary_EUF	May 01, 2022	4:16PM	Soil	M22- My0001929			X	X	X
17	SX_OB_20220 501_16_22_S S_Primary_EU F	May 01, 2022	4:22PM	Soil	M22- My0001930			X	X	X
18	SX_OB_20220 501_16_23_S S_Duplicate_E UF	May 01, 2022	4:23PM	Soil	M22- My0001931			X	X	X
19	SX_IB_202205	May 01, 2022	7:56PM	Soil	M22-			X	X	X

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SA 5063

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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										
	01_19_56_SS _Primary_EUF				My0001932					
20	SX_IB_202205 01_23_52_SS _Primary_EUF	May 01, 2022	11:52PM	Soil	M22- My0001933			X	X	X
21	SX_IB_202205 01_23_58_SS _Primary_EUF	May 01, 2022	11:58PM	Soil	M22- My0001934			X	X	X
22	SX_IB_202205 02_03_56_SS _Primary_EUF	May 02, 2022	3:56AM	Soil	M22- My0001935			X	X	X
23	SX_IB_202204 30_07_52_SS _Triplicate_EU	Apr 30, 2022	7:52AM	AUS Leachate - pH 5.0	M22- My0001936		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										
	_TriPLICATE_EU F									
24	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	AUS Leachate - pH 5.0	M22-My0001937		X		X	
25	SX_OB_20220430_11_46_SS_Primary_EUF	Apr 30, 2022	11:46AM	AUS Leachate - pH 5.0	M22-My0001938		X		X	
26	SX_IB_20220430_11_50_SS_Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - pH 5.0	M22-My0001939		X		X	
27	SX_OB_20220430_15_58_S	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22-My0001940		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										
	S_Primary_EU F									
28	SX_OB_20220 430_15_58_S S_Duplicate_E UF	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22- My0001941		X		X	
29	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	AUS Leachate - pH 5.0	M22- My0001942		X		X	
30	SX_OB_20220 501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	AUS Leachate - pH 5.0	M22- My0001943		X		X	

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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										
31	SX_OB_20220501_04_07_S_S_Primary_EU_F	May 01, 2022	4:07AM	AUS Leachate - pH 5.0	M22-My0001944		X		X	
32	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001945		X		X	
33	SX_IB_20220501_08_21_SS_Triplicate_EU_F	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001946		X		X	
34	SX_OB_20220501_08_25_S_S_Primary_EU	May 01, 2022	8:25AM	AUS Leachate - pH 5.0	M22-My0001947		X		X	

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Project Name:	20220502041931-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 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										
	F									
35	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - pH 5.0	M22-My0001948		X		X	
36	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - pH 5.0	M22-My0001949		X		X	
37	SX_OB_20220501_16_22_S_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - pH 5.0	M22-My0001950		X		X	
38	SX_OB_20220501_16_23_S_S_Duplicate_E	May 01, 2022	4:23PM	AUS Leachate - pH 5.0	M22-My0001951		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										
	S_Duplicate_EUF									
39	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0001952		X		X	
40	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - pH 5.0	M22-My0001953		X		X	
41	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - pH 5.0	M22-My0001954		X		X	
42	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - pH 5.0	M22-My0001955		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										
43	SX_IB_20220430_07_52_SS_Triplicate_EU_F	Apr 30, 2022	7:52AM	AUS Leachate - Reagent Water	M22-My0001956		X		X	
44	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	AUS Leachate - Reagent Water	M22-My0001957		X		X	
45	SX_OB_20220430_11_46_S_S_Primary_EU_F	Apr 30, 2022	11:46AM	AUS Leachate - Reagent Water	M22-My0001958		X		X	
46	SX_IB_20220430_11_50_SS_Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - Reagent Water	M22-My0001959		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
47	SX_OB_20220430_15_58_S_S_Primary_EU_F	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22-My0001960		X		X	
48	SX_OB_20220430_15_58_S_S_Duplicate_EUF	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22-My0001961		X		X	
49	SX_OB_20220430_20_03_S_S_Primary_EU_F	Apr 30, 2022	8:03PM	AUS Leachate - Reagent Water	M22-My0001962		X		X	
50	SX_OB_20220501_00_08_S	May 01, 2022	12:08AM	AUS Leachate - Reagent	M22-My0001963		X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220502041931-Eurofin-21
Project ID: JC0927

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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										
	S_Primary_EU F			Water						
51	SX_OB_20220 501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	AUS Leachate - Reagent Water	M22- My0001964		X		X	
52	SX_IB_202205 01_08_21_SS _Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22- My0001965		X		X	
53	SX_IB_202205 01_08_21_SS _Triplicate_EU F	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22- My0001966		X		X	
54	SX_OB_20220	May 01, 2022	8:25AM	AUS Leachate	M22-		X		X	

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Project Name:	20220502041931-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										
54	SX_OB_20220501_08_25_S_S_Primary_EUF	May 01, 2022	8:25AM	AUS Leachate - Reagent Water	M22-My0001967					
55	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - Reagent Water	M22-My0001968		X		X	
56	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - Reagent Water	M22-My0001969		X		X	
57	SX_OB_20220501_16_22_S_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - Reagent Water	M22-My0001970		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
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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 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										
58	SX_OB_20220501_16_23_SS_Duplicate_EUF	May 01, 2022	4:23PM	AUS Leachate - Reagent Water	M22-My0001971		X		X	
59	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0001972		X		X	
60	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - Reagent Water	M22-My0001973		X		X	
61	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - Reagent Water	M22-My0001974		X		X	
62	SX_IB_20220502	May 02, 2022	3:56AM	AUS Leachate	M22-		X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
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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										
62	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - Reagent Water	M22-My0001975					
63	SX_IB_20220430_07_56_SS_Primary_EUF	Apr 30, 2022	7:56AM	Soil	M22-My0001976	X				
64	SX_IB_20220430_15_53_SS_Primary_EUF	Apr 30, 2022	3:53PM	Soil	M22-My0001977	X				
65	SX_IB_20220501_12_16_SS_Primary_EUF	May 01, 2022	12:16PM	Soil	M22-My0001978	X				
66	SX_IB_20220501_16_12_SS	May 01, 2022	4:12PM	Soil	M22-My0001979	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										
	_Primary_EUF									
67	SX_IB_20220501_19_50_SS_Primary_EUF	May 01, 2022	7:50PM	Soil	M22-My0001980	X				
68	SX_IB_20220502_04_07_SS_Primary_EUF	May 02, 2022	4:07AM	Soil	M22-My0001981	X				
Test Counts						6	40	20	62	20

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)	%	107		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	92		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	98		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	83		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	132		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	115		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	114		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)		%	92			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)		%	119			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)		%	112			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)		%	111			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)		%	91			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)		%	121			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)		%	61			50-150	Pass		
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)		%	91			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)		%	88			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)		%	102			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)		%	102			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)		%	77			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)		%	80			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)		%	101			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)		%	82			50-150	Pass		
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)		%	102			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)		%	120			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)		%	106			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-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001937	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-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001937	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-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001937	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001937	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001943	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-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001943	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001943	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001959	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-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001959	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001959	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFASs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001974	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-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001974	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001974	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments

V2: Sample amendments as per below: "IB" changed to "OB"
 M22-My0001916SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001938SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001958SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001919SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001941SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001961SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001918SX_OB_20220430_15_58_SS_Primary_EUF
 M22-My0001940SX_OB_20220430_15_58_SS_Primary_EUF
 M22-My0001960SX_OB_20220430_15_58_SS_Primary_EUF

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
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
Mary Makarios	Senior Analyst (NSW)
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Agon Environmental Pty Ltd - VIC
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SA 5063



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: **David Lawson**

Report **884270-S-V2**
Project name **20220502041931-Eurofin-21**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS _Primary_EUF	SX_IB_202204 30_11_50_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS _Primary_EUF	SX_IB_202204 30_11_50_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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	%	78	100	94	104
Toluene-d8 (surr.)	1	%	85	80	80	97
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

Client Sample ID			SX_IB_202204 30_07_52_SS Triuplicate_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_IB_202204 430_11_46_SS Primary_EUF	SX_IB_202204 30_11_50_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	64	120	110	51
p-Terphenyl-d14 (surr.)	1	%	128	64	87	110
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	74	76	60	58
Tetrachloro-m-xylene (surr.)	1	%	97	123	75	73

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_IB_202204 30_11_46_SS Primary_EUF	SX_IB_202204 30_11_50_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	74	76	60	58
Tetrachloro-m-xylene (surr.)	1	%	97	123	75	73
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	%	int	45	51	55
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	430	650	310	350
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.4	8.4	8.2	9.5
% Moisture						
% Moisture	1	%	32	28	30	31
Heavy Metals						
Arsenic	2	mg/kg	29	25	21	30
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	110	170	160	120
Copper	5	mg/kg	70	87	86	79
Lead	5	mg/kg	6.1	< 5	< 5	5.8
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS Primary_EUF	SX_IB_202204 30_11_50_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	280	260	220
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	150	180	160	160
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	%	99	84	104	97
13C5-PFPeA (surr.)	1	%	108	83	100	93
13C5-PFHxA (surr.)	1	%	85	78	87	80
13C4-PFHpA (surr.)	1	%	90	75	86	84
13C8-PFOA (surr.)	1	%	71	73	58	59
13C5-PFNA (surr.)	1	%	76	69	61	72
13C6-PFDA (surr.)	1	%	71	73	69	74
13C2-PFUnDA (surr.)	1	%	102	86	93	93
13C2-PFDoDA (surr.)	1	%	106	85	103	100
13C2-PFTeDA (surr.)	1	%	94	105	104	92
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	%	107	90	111	95
D3-N-MeFOSA (surr.)	1	%	114	103	105	82
D5-N-EtFOSA (surr.)	1	%	114	101	118	109
D7-N-MeFOSE (surr.)	1	%	106	74	114	91
D9-N-EtFOSE (surr.)	1	%	100	93	110	94
D5-N-EtFOSAA (surr.)	1	%	63	54	63	72
D3-N-MeFOSAA (surr.)	1	%	65	66	76	70

Client Sample ID			SX_IB_202204 30_07_52_SS TriPLICATE_EUF	SX_IB_202204 30_07_55_SS Primary_EUF	SX_OB_20220 430_11_46_SS _Primary_EUF	SX_IB_202204 30_11_50_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001914	M22- My0001915	M22- My0001916	M22- My0001917
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	Apr 30, 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	%	71	72	69	62
18O2-PFHxS (surr.)	1	%	75	72	86	84
13C8-PFOS (surr.)	1	%	86	81	62	68
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	%	108	60	119	106
13C2-6:2 FTSA (surr.)	1	%	96	58	100	92
13C2-8:2 FTSA (surr.)	1	%	88	85	73	67
13C2-10:2 FTSA (surr.)	1	%	60	79	95	101
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_20220 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 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_OB_20220 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS _Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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-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

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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	%	91	88	81	63
Toluene-d8 (surr.)	1	%	77	96	83	69
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	%	61	87	59	68
p-Terphenyl-d14 (surr.)	1	%	123	85	99	54

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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
Dibutylchlorendate (surr.)	1	%	52	52	55	85
Tetrachloro-m-xylene (surr.)	1	%	61	91	83	74
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	%	52	52	55	85
Tetrachloro-m-xylene (surr.)	1	%	61	91	83	74
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- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 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	%	60	30	46	41
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	300	430	< 100	380
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.5	8.4	8.2	8.3
% Moisture						
% Moisture	1	%	29	31	31	29
Heavy Metals						
Arsenic	2	mg/kg	21	21	26	22
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	170	170	160	160
Copper	5	mg/kg	98	95	82	91
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	280	270	250	280
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	160	160	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	%	101	102	100	105
13C5-PFPeA (surr.)	1	%	110	97	88	100
13C5-PFHxA (surr.)	1	%	88	88	80	90

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	87	85	84	95
13C8-PFOA (surr.)	1	%	89	88	52	87
13C5-PFNA (surr.)	1	%	68	73	58	74
13C6-PFDA (surr.)	1	%	78	69	69	89
13C2-PFUnDA (surr.)	1	%	113	101	100	96
13C2-PFDoDA (surr.)	1	%	103	111	107	105
13C2-PFTeDA (surr.)	1	%	97	106	104	125
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	%	104	99	117	114
D3-N-MeFOSA (surr.)	1	%	102	103	107	104
D5-N-EtFOSA (surr.)	1	%	118	113	118	128
D7-N-MeFOSE (surr.)	1	%	89	96	112	110
D9-N-EtFOSE (surr.)	1	%	112	109	99	112
D5-N-EtFOSAA (surr.)	1	%	69	72	57	53
D3-N-MeFOSAA (surr.)	1	%	68	57	90	77
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	%	81	74	62	78
18O2-PFHxS (surr.)	1	%	75	74	97	79
13C8-PFOS (surr.)	1	%	84	87	96	58
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	%	98	105	147	108
13C2-6:2 FTSA (surr.)	1	%	92	97	104	98

Client Sample ID			SX_OB_20220 430_15_58_SS _Primary_EUF	SX_OB_20220 430_15_58_SS Duplicate_EU F	SX_OB_20220 430_20_03_SS _Primary_EUF	SX_OB_20220 501_00_08_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001918	M22- My0001919	M22- My0001920	M22- My0001923
Date Sampled			Apr 30, 2022	Apr 30, 2022	Apr 30, 2022	May 01, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	75	94	75	91
13C2-10:2 FTSA (surr.)	1	%	75	75	91	94
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_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS TriPLICATE_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 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-Dichloroethane	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 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	74	58	72	81
Toluene-d8 (surr.)	1	%	64	63	58	79

Client Sample ID			SX_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 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	%	64	70	50	58
p-Terphenyl-d14 (surr.)	1	%	51	61	110	100
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 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	111	108	136	50
Tetrachloro-m-xylene (surr.)	1	%	138	110	101	106
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	%	111	108	136	50
Tetrachloro-m-xylene (surr.)	1	%	138	110	101	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	%	int	int	int	98
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	500	130	150
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.2	9.4	9.4	8.4
% Moisture	1	%	34	30	33	31

Client Sample ID			SX_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	20	35	32	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	180	130	120	120
Copper	5	mg/kg	91	93	84	61
Lead	5	mg/kg	< 5	7.1	6.8	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	260	240	260	160
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	190	200	100
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	%	102	105	101	100
13C5-PFPeA (surr.)	1	%	105	99	93	99
13C5-PFHxA (surr.)	1	%	87	91	89	88
13C4-PFHpA (surr.)	1	%	91	89	91	89
13C8-PFOA (surr.)	1	%	81	76	67	90
13C5-PFNA (surr.)	1	%	78	67	61	73
13C6-PFDA (surr.)	1	%	63	77	71	98
13C2-PFUnDA (surr.)	1	%	113	101	94	81
13C2-PFDoDA (surr.)	1	%	105	109	103	98
13C2-PFTeDA (surr.)	1	%	106	112	99	97
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	%	109	116	114	109
D3-N-MeFOSA (surr.)	1	%	130	99	96	114

Client Sample ID			SX_OB_20220 501_04_07_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Primary_EUF	SX_IB_202205 01_08_21_SS _Triuplicate_EUF	SX_OB_20220 501_08_25_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001924	M22- My0001925	M22- My0001926	M22- My0001927
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	116	119	114	116
D7-N-MeFOSE (surr.)	1	%	105	94	98	100
D9-N-EtFOSE (surr.)	1	%	104	106	99	115
D5-N-EtFOSAA (surr.)	1	%	50	65	63	62
D3-N-MeFOSAA (surr.)	1	%	67	70	66	56
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	%	73	74	73	78
18O2-PFHxS (surr.)	1	%	98	76	67	74
13C8-PFOS (surr.)	1	%	74	60	78	65
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	%	106	116	113	107
13C2-6:2 FTSA (surr.)	1	%	116	99	107	94
13C2-8:2 FTSA (surr.)	1	%	89	84	68	78
13C2-10:2 FTSA (surr.)	1	%	88	92	110	76
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 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 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
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

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	127	83	90	99
Toluene-d8 (surr.)	1	%	107	74	83	93
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

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	54	87	66	123
p-Terphenyl-d14 (surr.)	1	%	109	93	124	136
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	67	83	56	70
Tetrachloro-m-xylene (surr.)	1	%	99	95	69	138
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	%	67	83	56	70
Tetrachloro-m-xylene (surr.)	1	%	99	95	69	138

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
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	%	71	75	88	71
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	140	150	< 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	9.5	9.5	8.1	8.1
% Moisture						
% Moisture	1	%	33	36	30	28
Heavy Metals						
Arsenic	2	mg/kg	25	38	19	33
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	110	150	160	300
Copper	5	mg/kg	73	100	80	180
Lead	5	mg/kg	5.3	10	< 5	8.2
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	5.2
Nickel	5	mg/kg	260	260	220	490
Selenium	2	mg/kg	< 2	2.1	< 2	2.1
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	170	200	140	290
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

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	102	99	104	99
13C5-PFPeA (surr.)	1	%	105	99	103	109
13C5-PFHxA (surr.)	1	%	88	83	90	87
13C4-PFHpA (surr.)	1	%	86	88	90	87
13C8-PFOA (surr.)	1	%	77	64	92	87
13C5-PFNA (surr.)	1	%	70	60	61	70
13C6-PFDA (surr.)	1	%	80	69	90	72
13C2-PFUnDA (surr.)	1	%	87	102	112	83
13C2-PFDoDA (surr.)	1	%	115	115	103	111
13C2-PFTeDA (surr.)	1	%	105	100	92	94
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	%	95	104	118	103
D3-N-MeFOSA (surr.)	1	%	96	86	99	104
D5-N-EtFOSA (surr.)	1	%	115	117	113	107
D7-N-MeFOSE (surr.)	1	%	96	96	103	94
D9-N-EtFOSE (surr.)	1	%	113	100	104	95
D5-N-EtFOSAA (surr.)	1	%	62	68	61	59
D3-N-MeFOSAA (surr.)	1	%	62	58	71	86
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoronanesulfonic 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	%	74	70	78	76
18O2-PFHxS (surr.)	1	%	68	74	85	87
13C8-PFOS (surr.)	1	%	80	65	95	64

Client Sample ID			SX_IB_202205 01_12_19_SS_ Primary_EUF	SX_IB_202205 01_16_16_SS_ Primary_EUF	SX_OB_20220 501_16_22_SS_ Primary_EUF	SX_OB_20220 501_16_23_SS_ Duplicate_EU F
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001928	M22- My0001929	M22- My0001930	M22- My0001931
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 01, 2022
Test/Reference	LOR	Unit				
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	%	113	115	105	98
13C2-6:2 FTSA (surr.)	1	%	97	81	103	85
13C2-8:2 FTSA (surr.)	1	%	84	73	80	79
13C2-10:2 FTSA (surr.)	1	%	103	98	89	78
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 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202205 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
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

Client Sample ID			SX_IB_202205 01_19_56_SS Primary_EUF	SX_IB_202205 01_23_52_SS Primary_EUF	SX_IB_202205 01_23_58_SS Primary_EUF	SX_IB_202205 02_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	115	95	118	122
Toluene-d8 (surr.)	1	%	123	94	123	125
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	77	52	60
p-Terphenyl-d14 (surr.)	1	%	101	150	135	97
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

Client Sample ID			SX_IB_202205 01_19_56_SS Primary_EUF	SX_IB_202205 01_23_52_SS Primary_EUF	SX_IB_202205 01_23_58_SS Primary_EUF	SX_IB_202205 02_03_56_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	86	120	64	51
Tetrachloro-m-xylene (surr.)	1	%	100	68	70	66
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	%	86	120	64	51
Tetrachloro-m-xylene (surr.)	1	%	100	68	70	66
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	%	73	70	72	95
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_IB_202205 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	110	380	440	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.7	9.7	9.7	9.6
% Moisture	1	%	34	35	34	34
Heavy Metals						
Arsenic	2	mg/kg	34	36	36	27
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	110	140	120
Copper	5	mg/kg	86	84	87	72
Lead	5	mg/kg	7.8	6.8	7.5	6.0
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	230	200	250	220
Selenium	2	mg/kg	< 2	< 2	2.1	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	170	150	180	160
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	%	98	101	97	102
13C5-PFPeA (surr.)	1	%	97	102	95	99
13C5-PFHxA (surr.)	1	%	85	87	82	90
13C4-PFHpA (surr.)	1	%	93	93	81	92
13C8-PFOA (surr.)	1	%	68	77	68	69
13C5-PFNA (surr.)	1	%	75	69	71	72
13C6-PFDA (surr.)	1	%	74	85	101	64
13C2-PFUnDA (surr.)	1	%	115	92	106	90
13C2-PFDoDA (surr.)	1	%	109	95	101	108
13C2-PFTeDA (surr.)	1	%	113	104	108	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

Client Sample ID			SX_IB_202205 01_19_56_SS_ Primary_EUF	SX_IB_202205 01_23_52_SS_ Primary_EUF	SX_IB_202205 01_23_58_SS_ Primary_EUF	SX_IB_202205 02_03_56_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0001932	M22- My0001933	M22- My0001934	M22- My0001935
Date Sampled			May 01, 2022	May 01, 2022	May 01, 2022	May 02, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
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	%	113	118	105	111
D3-N-MeFOSA (surr.)	1	%	110	109	106	96
D5-N-EtFOSA (surr.)	1	%	116	112	109	121
D7-N-MeFOSE (surr.)	1	%	105	103	85	91
D9-N-EtFOSE (surr.)	1	%	107	102	94	99
D5-N-EtFOSAA (surr.)	1	%	56	68	53	65
D3-N-MeFOSAA (surr.)	1	%	61	65	64	80
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	%	67	77	68	73
18O2-PFHxS (surr.)	1	%	88	76	66	74
13C8-PFOS (surr.)	1	%	75	69	75	97
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	%	119	110	107	108
13C2-6:2 FTSA (surr.)	1	%	98	108	87	109
13C2-8:2 FTSA (surr.)	1	%	84	82	63	74
13C2-10:2 FTSA (surr.)	1	%	70	81	70	85
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 03, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 03, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 03, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 03, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 03, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 03, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 03, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 03, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 03, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 03, 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 03, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 03, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	May 03, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 03, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 03, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 02, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 03, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 02, 2022	

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

Order No.:
Report #: 884270
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 4:15 PM
Due: May 9, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Project Name: 20220502041931-Eurofin-21
Project ID: JC0927

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										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_IB_20220430_07_52_SS_Triplicate_EU F	Apr 30, 2022	7:52AM	Soil	M22-My0001914			X	X	X
2	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	Soil	M22-My0001915			X	X	X
3	SX_OB_20220430_11_46_S_S_Primary_EU F	Apr 30, 2022	11:46AM	Soil	M22-My0001916			X	X	X
4	SX_IB_202204	Apr 30, 2022	11:50AM	Soil	M22-			X	X	X

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Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
	30_11_50_SS _Primary_EUF				My0001917					
5	SX_OB_20220 430_15_58_S S_Primary_EU F	Apr 30, 2022	3:58PM	Soil	M22- My0001918			X	X	X
6	SX_OB_20220 430_15_58_S S_Duplicate_E UF	Apr 30, 2022	3:58PM	Soil	M22- My0001919			X	X	X
7	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	Soil	M22- My0001920			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
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Project Name:	20220502041931-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										
8	SX_OB_20220430_20_13_S R_Rinsate_EU F	Apr 30, 2022	8:13PM	Water	M22-My0001921				X	
9	SX_OB_20220430_20_13_S B_Blank_EUF	Apr 30, 2022	8:13PM	Water	M22-My0001922				X	
10	SX_OB_20220501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	Soil	M22-My0001923			X	X	X
11	SX_OB_20220501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	Soil	M22-My0001924			X	X	X

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Project Name:	20220502041931-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										
	F									
12	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	Soil	M22-My0001925			X	X	X
13	SX_IB_20220501_08_21_SS_Triplicate_EUF	May 01, 2022	8:21AM	Soil	M22-My0001926			X	X	X
14	SX_OB_20220501_08_25_S_Primary_EUF	May 01, 2022	8:25AM	Soil	M22-My0001927			X	X	X
15	SX_IB_20220501_12_19_SS	May 01, 2022	12:19PM	Soil	M22-My0001928			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
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Project Name:	20220502041931-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										
	01_12_19_SS _Primary_EUF				My0001928					
16	SX_IB_202205 01_16_16_SS _Primary_EUF	May 01, 2022	4:16PM	Soil	M22- My0001929			X	X	X
17	SX_OB_20220 501_16_22_S S_Primary_EU F	May 01, 2022	4:22PM	Soil	M22- My0001930			X	X	X
18	SX_OB_20220 501_16_23_S S_Duplicate_E UF	May 01, 2022	4:23PM	Soil	M22- My0001931			X	X	X
19	SX_IB_202205	May 01, 2022	7:56PM	Soil	M22-			X	X	X

Company Name: Agon Environmental Pty Ltd - VIC
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Project Name: 20220502041931-Eurofin-21
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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										
	01_19_56_SS _Primary_EUF				My0001932					
20	SX_IB_202205 01_23_52_SS _Primary_EUF	May 01, 2022	11:52PM	Soil	M22- My0001933			X	X	X
21	SX_IB_202205 01_23_58_SS _Primary_EUF	May 01, 2022	11:58PM	Soil	M22- My0001934			X	X	X
22	SX_IB_202205 02_03_56_SS _Primary_EUF	May 02, 2022	3:56AM	Soil	M22- My0001935			X	X	X
23	SX_IB_202204 30_07_52_SS _Triplicate_EU	Apr 30, 2022	7:52AM	AUS Leachate - pH 5.0	M22- My0001936		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
	_TriPLICATE_EU F									
24	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	AUS Leachate - pH 5.0	M22-My0001937		X		X	
25	SX_OB_20220430_11_46_SS_Primary_EUF	Apr 30, 2022	11:46AM	AUS Leachate - pH 5.0	M22-My0001938		X		X	
26	SX_IB_20220430_11_50_SS_Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - pH 5.0	M22-My0001939		X		X	
27	SX_OB_20220430_15_58_S	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22-My0001940		X		X	

Company Name: Agon Environmental Pty Ltd - VIC
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SA 5063

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Project ID: JC0927

Order No.:
Report #: 884270
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 4:15 PM
Due: May 9, 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										
	S_Primary_EU F									
28	SX_OB_20220 430_15_58_S S_Duplicate_E UF	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22- My0001941		X		X	
29	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	AUS Leachate - pH 5.0	M22- My0001942		X		X	
30	SX_OB_20220 501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	AUS Leachate - pH 5.0	M22- My0001943		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										
31	SX_OB_20220501_04_07_S_S_Primary_EU_F	May 01, 2022	4:07AM	AUS Leachate - pH 5.0	M22-My0001944		X		X	
32	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001945		X		X	
33	SX_IB_20220501_08_21_SS_Triplicate_EU_F	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001946		X		X	
34	SX_OB_20220501_08_25_S_S_Primary_EU	May 01, 2022	8:25AM	AUS Leachate - pH 5.0	M22-My0001947		X		X	

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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										
	F									
35	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - pH 5.0	M22-My0001948		X		X	
36	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - pH 5.0	M22-My0001949		X		X	
37	SX_OB_20220501_16_22_S_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - pH 5.0	M22-My0001950		X		X	
38	SX_OB_20220501_16_23_S_S_Duplicate_E	May 01, 2022	4:23PM	AUS Leachate - pH 5.0	M22-My0001951		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										
	S_Duplicate_EUF									
39	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0001952		X		X	
40	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - pH 5.0	M22-My0001953		X		X	
41	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - pH 5.0	M22-My0001954		X		X	
42	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - pH 5.0	M22-My0001955		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										
43	SX_IB_20220430_07_52_SS_Triplicate_EU_F	Apr 30, 2022	7:52AM	AUS Leachate - Reagent Water	M22-My0001956		X		X	
44	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	AUS Leachate - Reagent Water	M22-My0001957		X		X	
45	SX_OB_20220430_11_46_S_S_Primary_EU_F	Apr 30, 2022	11:46AM	AUS Leachate - Reagent Water	M22-My0001958		X		X	
46	SX_IB_20220430_11_50_SS_Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - Reagent Water	M22-My0001959		X		X	

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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										
47	SX_OB_20220430_15_58_S_S_Primary_EU_F	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22-My0001960		X		X	
48	SX_OB_20220430_15_58_S_S_Duplicate_EUF	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22-My0001961		X		X	
49	SX_OB_20220430_20_03_S_S_Primary_EU_F	Apr 30, 2022	8:03PM	AUS Leachate - Reagent Water	M22-My0001962		X		X	
50	SX_OB_20220501_00_08_S	May 01, 2022	12:08AM	AUS Leachate - Reagent	M22-My0001963		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										
	S_Primary_EU F			Water						
51	SX_OB_20220 501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	AUS Leachate - Reagent Water	M22- My0001964		X		X	
52	SX_IB_202205 01_08_21_SS _Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22- My0001965		X		X	
53	SX_IB_202205 01_08_21_SS _Triplicate_EU F	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22- My0001966		X		X	
54	SX_OB_20220	May 01, 2022	8:25AM	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										
54	SX_OB_20220501_08_25_S_S_Primary_EUF	May 01, 2022	8:25AM	AUS Leachate - Reagent Water	M22-My0001967					
55	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - Reagent Water	M22-My0001968		X		X	
56	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - Reagent Water	M22-My0001969		X		X	
57	SX_OB_20220501_16_22_S_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - Reagent Water	M22-My0001970		X		X	

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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										
58	SX_OB_20220501_16_23_SS_Duplicate_EUF	May 01, 2022	4:23PM	AUS Leachate - Reagent Water	M22-My0001971		X		X	
59	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0001972		X		X	
60	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - Reagent Water	M22-My0001973		X		X	
61	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - Reagent Water	M22-My0001974		X		X	
62	SX_IB_20220502	May 02, 2022	3:56AM	AUS Leachate	M22-		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										
62	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - Reagent Water	M22-My0001975					
63	SX_IB_20220430_07_56_SS_Primary_EUF	Apr 30, 2022	7:56AM	Soil	M22-My0001976	X				
64	SX_IB_20220430_15_53_SS_Primary_EUF	Apr 30, 2022	3:53PM	Soil	M22-My0001977	X				
65	SX_IB_20220501_12_16_SS_Primary_EUF	May 01, 2022	12:16PM	Soil	M22-My0001978	X				
66	SX_IB_20220501_16_12_SS	May 01, 2022	4:12PM	Soil	M22-My0001979	X				

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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										
	_Primary_EUF									
67	SX_IB_20220501_19_50_SS_Primary_EUF	May 01, 2022	7:50PM	Soil	M22-My0001980	X				
68	SX_IB_20220502_04_07_SS_Primary_EUF	May 02, 2022	4:07AM	Soil	M22-My0001981	X				
Test Counts						6	40	20	62	20

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	%	93		70-130	Pass	
TRH C10-C14	%	127		70-130	Pass	
Naphthalene	%	93		70-130	Pass	
TRH C6-C10	%	93		70-130	Pass	
TRH >C10-C16	%	121		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	95		70-130	Pass	
1.1.1-Trichloroethane	%	97		70-130	Pass	
1.2-Dichlorobenzene	%	94		70-130	Pass	
1.2-Dichloroethane	%	123		70-130	Pass	
Benzene	%	106		70-130	Pass	
Ethylbenzene	%	112		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	110			70-130	Pass	
Toluene	%	119			70-130	Pass	
Trichloroethene	%	101			70-130	Pass	
Xylenes - Total*	%	111			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	104			70-130	Pass	
Anthracene	%	96			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	88			70-130	Pass	
Benzo(b&i)fluoranthene	%	110			70-130	Pass	
Benzo(g,h,i)perylene	%	86			70-130	Pass	
Benzo(k)fluoranthene	%	123			70-130	Pass	
Chrysene	%	86			70-130	Pass	
Dibenz(a,h)anthracene	%	73			70-130	Pass	
Fluoranthene	%	90			70-130	Pass	
Fluorene	%	88			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	80			70-130	Pass	
Naphthalene	%	104			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	85			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	91			70-130	Pass	
4,4'-DDD	%	94			70-130	Pass	
4,4'-DDE	%	73			70-130	Pass	
4,4'-DDT	%	74			70-130	Pass	
a-HCH	%	104			70-130	Pass	
Aldrin	%	80			70-130	Pass	
b-HCH	%	94			70-130	Pass	
d-HCH	%	89			70-130	Pass	
Dieldrin	%	103			70-130	Pass	
Endosulfan I	%	95			70-130	Pass	
Endosulfan II	%	99			70-130	Pass	
Endosulfan sulphate	%	72			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	78			70-130	Pass	
Endrin ketone	%	98			70-130	Pass	
g-HCH (Lindane)	%	82			70-130	Pass	
Heptachlor	%	86			70-130	Pass	
Heptachlor epoxide	%	94			70-130	Pass	
Hexachlorobenzene	%	101			70-130	Pass	
Methoxychlor	%	83			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	93			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	108			25-140	Pass	
2,4-Dichlorophenol	%	94			25-140	Pass	
2,4,5-Trichlorophenol	%	66			25-140	Pass	
2,4,6-Trichlorophenol	%	92			25-140	Pass	
2,6-Dichlorophenol	%	85			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	119			25-140	Pass	
Pentachlorophenol	%	49			25-140	Pass	
Tetrachlorophenols - Total	%	68			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	53			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	38			25-140	Pass	
2-Nitrophenol	%	92			25-140	Pass	
2,4-Dimethylphenol	%	103			25-140	Pass	
2,4-Dinitrophenol	%	70			25-140	Pass	
2-Methylphenol (o-Cresol)	%	107			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	125			25-140	Pass	
4-Nitrophenol	%	48			25-140	Pass	
Dinoseb	%	50			25-140	Pass	
Phenol	%	87			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	90			70-130	Pass	
Cyanide (total)	%	97			70-130	Pass	
Fluoride (Total)	%	73			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Chromium	%	114			80-120	Pass	
Copper	%	104			80-120	Pass	
Lead	%	111			80-120	Pass	
Mercury	%	101			80-120	Pass	
Molybdenum	%	109			80-120	Pass	
Nickel	%	101			80-120	Pass	
Selenium	%	100			80-120	Pass	
Silver	%	104			80-120	Pass	
Tin	%	111			80-120	Pass	
Zinc	%	98			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	100			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	100			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	96			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	99			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	104			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	108			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	109			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	117			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	143			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	117			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	110			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	107			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	81			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	83			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	115			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	77			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	120			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	92			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	123			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	118			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	104			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	114			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	69			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	103			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	123			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	114			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	86			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	105			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	115			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-Ap0029246	NCP	%	81		70-130	Pass	
4.4'-DDD	M22-Ap0029246	NCP	%	108		70-130	Pass	
4.4'-DDE	M22-Ap0029246	NCP	%	89		70-130	Pass	
4.4'-DDT	M22-Ap0029246	NCP	%	79		70-130	Pass	
a-HCH	M22-Ap0029246	NCP	%	72		70-130	Pass	
Aldrin	M22-Ap0029246	NCP	%	87		70-130	Pass	
b-HCH	M22-Ap0029246	NCP	%	84		70-130	Pass	
d-HCH	M22-Ap0029246	NCP	%	84		70-130	Pass	
Dieldrin	M22-Ap0029246	NCP	%	82		70-130	Pass	
Endosulfan I	M22-Ap0029246	NCP	%	76		70-130	Pass	
Endosulfan II	M22-Ap0029246	NCP	%	84		70-130	Pass	
Endosulfan sulphate	M22-Ap0029246	NCP	%	72		70-130	Pass	
Endrin	M22-Ap0029246	NCP	%	71		70-130	Pass	
Endrin aldehyde	M22-Ap0052811	NCP	%	116		70-130	Pass	
Endrin ketone	M22-Ap0029246	NCP	%	75		70-130	Pass	
g-HCH (Lindane)	M22-Ap0029246	NCP	%	91		70-130	Pass	
Heptachlor	M22-Ap0029246	NCP	%	82		70-130	Pass	
Heptachlor epoxide	M22-Ap0029246	NCP	%	72		70-130	Pass	
Hexachlorobenzene	M22-Ap0029246	NCP	%	71		70-130	Pass	
Methoxychlor	M22-Ap0029246	NCP	%	79		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-Ap0057229	NCP	%	78		70-130	Pass	
Aroclor-1260	M22-Ap0057229	NCP	%	78		70-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2.4-Dinitrophenol	M22-Ap0051155	NCP	%	93		30-130	Pass	
4-Nitrophenol	M22-Ap0057121	NCP	%	54		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-My0000814	NCP	%	69		70-130	Fail	Q08
Cyanide (total)	M22-Ap0054479	NCP	%	127		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	M22-My0001692	NCP	%	108		75-125	Pass	
Cadmium	M22-My0001692	NCP	%	88		75-125	Pass	
Chromium	M22-My0001692	NCP	%	102		75-125	Pass	
Copper	M22-My0001692	NCP	%	124		75-125	Pass	
Lead	M22-My0001692	NCP	%	127		75-125	Fail	Q08
Mercury	M22-My0001692	NCP	%	114		75-125	Pass	
Molybdenum	M22-My0001692	NCP	%	125		75-125	Pass	
Nickel	M22-My0001692	NCP	%	124		75-125	Pass	
Selenium	M22-My0001692	NCP	%	101		75-125	Pass	
Silver	M22-My0001692	NCP	%	91		75-125	Pass	
Tin	M22-My0001692	NCP	%	115		75-125	Pass	
Zinc	M22-My0001692	NCP	%	109		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-Ap0058673	NCP	%	91		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Ap0058673	NCP	%	85		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Ap0058673	NCP	%	94		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0058673	NCP	%	101		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0058673	NCP	%	104		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0058673	NCP	%	91		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0058673	NCP	%	82		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0058673	NCP	%	111		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0058673	NCP	%	99		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0058673	NCP	%	98		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Ap0058673	NCP	%	99		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-Ap0058673	NCP	%	94		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0058673	NCP	%	88		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0058673	NCP	%	95		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0058673	NCP	%	93		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0058673	NCP	%	95		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0058673	NCP	%	67		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0058673	NCP	%	110		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-Ap0058673	NCP	%	86		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ap0058673	NCP	%	102		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ap0058673	NCP	%	114		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ap0058673	NCP	%	90		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ap0058673	NCP	%	89		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ap0058673	NCP	%	101		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctanesulfonic acid (PFOS)	M22-Ap0058673	NCP	%	128		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0058673	NCP	%	95		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-Ap0058673	NCP	%	93		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0058673	NCP	%	96		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0058673	NCP	%	107		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0058673	NCP	%	106		50-150	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-My0001915	CP	%	80		70-130	Pass	
Naphthalene	M22-My0001915	CP	%	96		70-130	Pass	
TRH C6-C10	M22-My0001915	CP	%	80		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-My0001915	CP	%	83		70-130	Pass	
1.1.1-Trichloroethane	M22-My0001915	CP	%	85		70-130	Pass	
1.2-Dichlorobenzene	M22-My0001915	CP	%	86		70-130	Pass	
1.2-Dichloroethane	M22-My0001915	CP	%	77		70-130	Pass	
Benzene	M22-My0001915	CP	%	77		70-130	Pass	
Ethylbenzene	M22-My0001915	CP	%	72		70-130	Pass	
m&p-Xylenes	M22-My0001915	CP	%	73		70-130	Pass	
o-Xylene	M22-My0001915	CP	%	78		70-130	Pass	
Toluene	M22-My0001915	CP	%	94		70-130	Pass	
Trichloroethene	M22-My0001915	CP	%	73		70-130	Pass	
Xylenes - Total*	M22-My0001915	CP	%	75		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-My0001916	CP	%	102		70-130	Pass	
Acenaphthylene	M22-My0001916	CP	%	102		70-130	Pass	
Anthracene	M22-My0001916	CP	%	97		70-130	Pass	
Benz(a)anthracene	M22-My0001916	CP	%	85		70-130	Pass	
Benzo(a)pyrene	M22-My0001916	CP	%	83		70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0001916	CP	%	112		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0001916	CP	%	92		70-130	Pass	
Benzo(k)fluoranthene	M22-My0001916	CP	%	115		70-130	Pass	
Chrysene	M22-My0001916	CP	%	125		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0001916	CP	%	101		70-130	Pass	
Fluoranthene	M22-My0001916	CP	%	83		70-130	Pass	
Fluorene	M22-My0001916	CP	%	89		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-My0001916	CP	%	100		70-130	Pass	
Naphthalene	M22-My0001916	CP	%	103		70-130	Pass	
Phenanthrene	M22-My0001916	CP	%	86		70-130	Pass	
Pyrene	M22-My0001916	CP	%	80		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-My0001916	CP	%	101		30-130	Pass	
2.4-Dichlorophenol	M22-My0001916	CP	%	95		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.5-Trichlorophenol	M22-My0001916	CP	%	72			30-130	Pass	
2.4.6-Trichlorophenol	M22-My0001916	CP	%	86			30-130	Pass	
2.6-Dichlorophenol	M22-My0001916	CP	%	86			30-130	Pass	
4-Chloro-3-methylphenol	M22-My0001916	CP	%	120			30-130	Pass	
Pentachlorophenol	M22-My0001916	CP	%	40			30-130	Pass	
Tetrachlorophenols - Total	M22-My0001916	CP	%	69			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	M22-My0001916	CP	%	49			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M22-My0001916	CP	%	34			30-130	Pass	
2-Nitrophenol	M22-My0001916	CP	%	86			30-130	Pass	
2.4-Dimethylphenol	M22-My0001916	CP	%	126			30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0001916	CP	%	110			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0001916	CP	%	87			30-130	Pass	
Dinoseb	M22-My0001916	CP	%	44			30-130	Pass	
Phenol	M22-My0001916	CP	%	89			30-130	Pass	
Spike - % Recovery									
				Result 1					
Fluoride (Total)	M22-My0001926	CP	%	64			70-130	Fail	Q08
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	M22-My0001928	CP	%	129			70-130	Pass	
TRH >C10-C16	M22-My0001928	CP	%	123			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	M22-My0000811	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
% Moisture	M22-My0001914	CP	%	32	32	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M22-My0001692	NCP	mg/kg	7.1	7.3	3.0	30%	Pass	
Cadmium	M22-My0001692	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M22-My0001692	NCP	mg/kg	50	53	7.0	30%	Pass	
Copper	M22-My0001692	NCP	mg/kg	17	18	4.0	30%	Pass	
Lead	M22-My0001692	NCP	mg/kg	24	25	5.0	30%	Pass	
Mercury	M22-My0001692	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M22-My0001692	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M22-My0001692	NCP	mg/kg	26	28	4.0	30%	Pass	
Selenium	M22-My0001692	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M22-My0001692	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M22-My0001692	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M22-My0001692	NCP	mg/kg	27	29	6.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M22-My0001915	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-My0001915	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-My0001915	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M22-My0001915	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-My0001915	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-My0001915	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)anthracene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0001915	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0001915	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0001915	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0001915	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0001915	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0001915	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0001915	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0001915	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0001915	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0001915	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0001915	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0001915	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0001915	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0001915	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0001915	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0001915	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0001916	CP	pH Units	8.2	8.2	pass	30%	Pass
Duplicate								
Chromium (hexavalent)	M22-My0001924	CP	mg/kg	< 1	< 1	<1	30%	Pass
Fluoride (Total)	M22-My0001924	CP	mg/kg	100	110	12	30%	Pass
Duplicate								
Fluoride (Total)	M22-My0001925	CP	mg/kg	500	400	21	30%	Pass
Duplicate								
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0001926	CP	pH Units	9.4	9.4	pass	30%	Pass
% Moisture	M22-My0001926	CP	%	33	29	11	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTriDA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0001926	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001926	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001926	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-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001926	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001926	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-My0001927	CP	mg/kg	< 20	< 20	<1	30%	Pass
Naphthalene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-My0001927	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1.1.2-Tetrachloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0001927	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0001927	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0001927	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0001927	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0001927	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0001927	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0001927	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass

Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0001927	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001927	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0001927	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-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001927	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001927	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M22-My0001933	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Comments

V2: Sample amendments as per below: "IB" changed to "OB"
 M22-My0001916SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001938SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001958SX_OB_20220430_11_46_SS_Primary_EUF
 M22-My0001919SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001941SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001961SX_OB_20220430_15_58_SS_Duplicate_EUF
 M22-My0001918SX_OB_20220430_15_58_SS_Primary_EUF
 M22-My0001940SX_OB_20220430_15_58_SS_Primary_EUF
 M22-My0001960SX_OB_20220430_15_58_SS_Primary_EUF

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Michael Cassidy	Analytical Services Manager
Scott Beddoes	Senior Analyst (NSW)
Caitlin Breeze	Senior Analyst (VIC)
Joseph Edouard	Senior Analyst (VIC)
Edward Lee	Senior Analyst (VIC)
Mary Makarios	Senior Analyst (NSW)
Vivian Wang	Senior Analyst (VIC)
Harry Bacalis	Senior Analyst (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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



NATA Accredited
Accreditation Number 1261
Site Number 1254

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

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

Report **884270-W**
Project name **20220502041931-Eurofin-21**
Project ID **JC0927**
Received Date **May 02, 2022**

Client Sample ID			SX_OB_20220 430_20_13_SR _Rinsate_EUF	SX_OB_20220 430_20_13_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0001921	M22- My0001922
Date Sampled			Apr 30, 2022	Apr 30, 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	%	97	95
13C5-PFPeA (surr.)	1	%	96	94
13C5-PFHxA (surr.)	1	%	86	82
13C4-PFHpA (surr.)	1	%	74	70
13C8-PFOA (surr.)	1	%	68	71
13C5-PFNA (surr.)	1	%	67	73
13C6-PFDA (surr.)	1	%	54	58
13C2-PFUnDA (surr.)	1	%	71	62
13C2-PFDoDA (surr.)	1	%	62	69
13C2-PFTeDA (surr.)	1	%	76	98
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	%	63	72

Client Sample ID			SX_OB_20220 430_20_13_SR _Rinsate_EUF	SX_OB_20220 430_20_13_SB _Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0001921	M22- My0001922
Date Sampled			Apr 30, 2022	Apr 30, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	52	68
D5-N-EtFOSA (surr.)	1	%	50	64
D7-N-MeFOSE (surr.)	1	%	47	61
D9-N-EtFOSE (surr.)	1	%	59	65
D5-N-EtFOSAA (surr.)	1	%	47	46
D3-N-MeFOSAA (surr.)	1	%	45	45
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	%	89	90
18O2-PFHxS (surr.)	1	%	93	94
13C8-PFOS (surr.)	1	%	60	63
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	%	52	52
13C2-6:2 FTSA (surr.)	1	%	63	62
13C2-8:2 FTSA (surr.)	1	%	105	98
13C2-10:2 FTSA (surr.)	1	%	70	66
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 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 02, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 02, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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

Order No.:
Report #: 884270
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 4:15 PM
Due: May 9, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Project Name: 20220502041931-Eurofin-21
Project ID: JC0927

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_IB_20220430_07_52_SS_Triplicate_EUF	Apr 30, 2022	7:52AM	Soil	M22-My0001914			X	X	X
2	SX_IB_20220430_07_55_SS_Primary_EUF	Apr 30, 2022	7:55AM	Soil	M22-My0001915			X	X	X
3	SX_IB_20220430_11_46_SS_Primary_EUF	Apr 30, 2022	11:46AM	Soil	M22-My0001916			X	X	X
4	SX_IB_20220430_11_50_SS	Apr 30, 2022	11:50AM	Soil	M22-My0001917			X	X	X

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

Project Name: 20220502041931-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 884270
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 4:15 PM
Due: May 9, 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										
	_Primary_EUF									
5	SX_IB_20220430_15_58_SS_Primary_EUF	Apr 30, 2022	3:58PM	Soil	M22-My0001918			X	X	X
6	SX_IB_20220430_15_58_SS_Duplicate_EUF	Apr 30, 2022	3:58PM	Soil	M22-My0001919			X	X	X
7	SX_OB_20220430_20_03_SS_Primary_EUF	Apr 30, 2022	8:03PM	Soil	M22-My0001920			X	X	X
8	SX_OB_20220430_20_13_S	Apr 30, 2022	8:13PM	Water	M22-My0001921				X	

Company Name: Agon Environmental Pty Ltd - VIC
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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										
	430_20_13_S R_Rinsate_EU F				My0001921					
9	SX_OB_20220 430_20_13_S B_Blank_EUF	Apr 30, 2022	8:13PM	Water	M22- My0001922			X		
10	SX_OB_20220 501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	Soil	M22- My0001923		X	X	X	
11	SX_OB_20220 501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	Soil	M22- My0001924		X	X	X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
12	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	Soil	M22-My0001925			X	X	X
13	SX_IB_20220501_08_21_SS_Triplicate_EUF	May 01, 2022	8:21AM	Soil	M22-My0001926			X	X	X
14	SX_OB_20220501_08_25_SS_Primary_EUF	May 01, 2022	8:25AM	Soil	M22-My0001927			X	X	X
15	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	Soil	M22-My0001928			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
16	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	Soil	M22-My0001929			X	X	X
17	SX_OB_20220501_16_22_SS_Primary_EUF	May 01, 2022	4:22PM	Soil	M22-My0001930			X	X	X
18	SX_OB_20220501_16_23_SS_Duplicate_EUF	May 01, 2022	4:23PM	Soil	M22-My0001931			X	X	X
19	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	Soil	M22-My0001932			X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
20	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	Soil	M22-My0001933			X	X	X
21	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	Soil	M22-My0001934			X	X	X
22	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	Soil	M22-My0001935			X	X	X
23	SX_IB_20220430_07_52_SS_Triplicate_EUF	Apr 30, 2022	7:52AM	AUS Leachate - pH 5.0	M22-My0001936		X		X	
24	SX_IB_202204	Apr 30, 2022	7:55AM	AUS Leachate	M22-		X		X	

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Project Name:	20220502041931-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_IB_202204 30_07_55_SS _Primary_EUF	Apr 30, 2022	7:55AM	AUS Leachate - pH 5.0	M22- My0001937					
25	SX_IB_202204 30_11_46_SS _Primary_EUF	Apr 30, 2022	11:46AM	AUS Leachate - pH 5.0	M22- My0001938		X		X	
26	SX_IB_202204 30_11_50_SS _Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - pH 5.0	M22- My0001939		X		X	
27	SX_IB_202204 30_15_58_SS _Primary_EUF	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22- My0001940		X		X	
28	SX_IB_202204 30_15_58_SS	Apr 30, 2022	3:58PM	AUS Leachate - pH 5.0	M22- My0001941		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										
	_Duplicate_EU F									
29	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	AUS Leachate - pH 5.0	M22- My0001942		X		X	
30	SX_OB_20220 501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	AUS Leachate - pH 5.0	M22- My0001943		X		X	
31	SX_OB_20220 501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	AUS Leachate - pH 5.0	M22- My0001944		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
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Project Name:	20220502041931-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_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001945		X		X	
33	SX_IB_20220501_08_21_SS_Triplicate_EUF	May 01, 2022	8:21AM	AUS Leachate - pH 5.0	M22-My0001946		X		X	
34	SX_OB_20220501_08_25_SS_Primary_EUF	May 01, 2022	8:25AM	AUS Leachate - pH 5.0	M22-My0001947		X		X	
35	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - pH 5.0	M22-My0001948		X		X	

Company Name: Agon Environmental Pty Ltd - VIC
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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										
36	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - pH 5.0	M22-My0001949		X		X	
37	SX_OB_20220501_16_22_S_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - pH 5.0	M22-My0001950		X		X	
38	SX_OB_20220501_16_23_S_S_Duplicate_EUF	May 01, 2022	4:23PM	AUS Leachate - pH 5.0	M22-My0001951		X		X	
39	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - pH 5.0	M22-My0001952		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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										
40	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - pH 5.0	M22-My0001953		X		X	
41	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - pH 5.0	M22-My0001954		X		X	
42	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - pH 5.0	M22-My0001955		X		X	
43	SX_IB_20220430_07_52_SS_Triplicate_EUF	Apr 30, 2022	7:52AM	AUS Leachate - Reagent Water	M22-My0001956		X		X	
44	SX_IB_202204	Apr 30, 2022	7:55AM	AUS Leachate	M22-		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 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										
	30_07_55_SS _Primary_EUF			- Reagent Water	My0001957					
45	SX_IB_202204 30_11_46_SS _Primary_EUF	Apr 30, 2022	11:46AM	AUS Leachate - Reagent Water	M22- My0001958		X		X	
46	SX_IB_202204 30_11_50_SS _Primary_EUF	Apr 30, 2022	11:50AM	AUS Leachate - Reagent Water	M22- My0001959		X		X	
47	SX_IB_202204 30_15_58_SS _Primary_EUF	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22- My0001960		X		X	
48	SX_IB_202204 30_15_58_SS _Duplicate_EU	Apr 30, 2022	3:58PM	AUS Leachate - Reagent Water	M22- My0001961		X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
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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										
	_Duplicate_EU F			Water						
49	SX_OB_20220 430_20_03_S S_Primary_EU F	Apr 30, 2022	8:03PM	AUS Leachate - Reagent Water	M22- My0001962		X		X	
50	SX_OB_20220 501_00_08_S S_Primary_EU F	May 01, 2022	12:08AM	AUS Leachate - Reagent Water	M22- My0001963		X		X	
51	SX_OB_20220 501_04_07_S S_Primary_EU F	May 01, 2022	4:07AM	AUS Leachate - Reagent Water	M22- My0001964		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										
52	SX_IB_20220501_08_21_SS_Primary_EUF	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22-My0001965		X		X	
53	SX_IB_20220501_08_21_SS_Triplicate_EUF	May 01, 2022	8:21AM	AUS Leachate - Reagent Water	M22-My0001966		X		X	
54	SX_OB_20220501_08_25_SS_Primary_EUF	May 01, 2022	8:25AM	AUS Leachate - Reagent Water	M22-My0001967		X		X	
55	SX_IB_20220501_12_19_SS_Primary_EUF	May 01, 2022	12:19PM	AUS Leachate - Reagent Water	M22-My0001968		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										
56	SX_IB_20220501_16_16_SS_Primary_EUF	May 01, 2022	4:16PM	AUS Leachate - Reagent Water	M22-My0001969		X		X	
57	SX_OB_20220501_16_22_S_Primary_EUF	May 01, 2022	4:22PM	AUS Leachate - Reagent Water	M22-My0001970		X		X	
58	SX_OB_20220501_16_23_S_Duplicate_EUF	May 01, 2022	4:23PM	AUS Leachate - Reagent Water	M22-My0001971		X		X	
59	SX_IB_20220501_19_56_SS_Primary_EUF	May 01, 2022	7:56PM	AUS Leachate - Reagent Water	M22-My0001972		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										
60	SX_IB_20220501_23_52_SS_Primary_EUF	May 01, 2022	11:52PM	AUS Leachate - Reagent Water	M22-My0001973		X		X	
61	SX_IB_20220501_23_58_SS_Primary_EUF	May 01, 2022	11:58PM	AUS Leachate - Reagent Water	M22-My0001974		X		X	
62	SX_IB_20220502_03_56_SS_Primary_EUF	May 02, 2022	3:56AM	AUS Leachate - Reagent Water	M22-My0001975		X		X	
63	SX_IB_20220430_07_56_SS_Primary_EUF	Apr 30, 2022	7:56AM	Soil	M22-My0001976	X				
64	SX_IB_20220430_15_53_SS	Apr 30, 2022	3:53PM	Soil	M22-My0001977	X				

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

Project Name: 20220502041931-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 884270
Phone: 08 8338 1009
Fax:

Received: May 2, 2022 4:15 PM
Due: May 9, 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 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										
	30_15_53_SS _Primary_EUF				My0001977					
65	SX_IB_202205 01_12_16_SS _Primary_EUF	May 01, 2022	12:16PM	Soil	M22- My0001978	X				
66	SX_IB_202205 01_16_12_SS _Primary_EUF	May 01, 2022	4:12PM	Soil	M22- My0001979	X				
67	SX_IB_202205 01_19_50_SS _Primary_EUF	May 01, 2022	7:50PM	Soil	M22- My0001980	X				
68	SX_IB_202205 02_04_07_SS _Primary_EUF	May 02, 2022	4:07AM	Soil	M22- My0001981	X				

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 2, 2022 4:15 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	884270	Due:	May 9, 2022
Project Name:	20220502041931-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					
Test Counts	6	40	20	62	20

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<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

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

Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (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)	%	79		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	109		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	98		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	99		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	104		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	91		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	109		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	137		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	98		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	118		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	116		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	94			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	106			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	102			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	96			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	101			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	111			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	62			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)								
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	96			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	106			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	104			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	97			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	91			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	100			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	85			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	108			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	90			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	91			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	103			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-My0001444	NCP	%	145		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0001444	NCP	%	115		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0001444	NCP	%	95		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0001444	NCP	%	99		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0001444	NCP	%	120		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0001444	NCP	%	107		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0001444	NCP	%	98		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0001444	NCP	%	125		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0001444	NCP	%	121		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0001444	NCP	%	118		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0001444	NCP	%	124		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-My0001444	NCP	%	91		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0001444	NCP	%	112		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0001444	NCP	%	106		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0001444	NCP	%	101		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0001444	NCP	%	113		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-My0001444	NCP	%	103			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0001444	NCP	%	105			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-My0001444	NCP	%	89			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0001444	NCP	%	77			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0001444	NCP	%	115			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0001444	NCP	%	108			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0001444	NCP	%	117			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0001444	NCP	%	85			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0001444	NCP	%	68			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0001444	NCP	%	70			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-My0001444	NCP	%	110			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0001444	NCP	%	111			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0001444	NCP	%	107			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0001444	NCP	%	123			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)	L22-My0005007	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Ap0060546	NCP	ug/L	0.05	0.04	4.0	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Ap0060546	NCP	ug/L	0.04	0.04	3.0	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	L22-My0005007	NCP	ug/L	0.01	0.01	11	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	L22-My0005007	NCP	ug/L	0.02	0.02	13	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	L22-My0005007	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-Ap0060546	NCP	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-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ap0060546	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ap0060546	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ap0060546	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	N/A
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:

Harry Bacalis	Analytical Services Manager
Joseph Edouard	Senior Analyst (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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CHAIN OF CUSTODY DOCUMENTATION								 Australian Laboratory Services Pty Ltd													
CLIENT: Agon Environmental				SAMPLER: WOH + DB + AV + LR																	
ADDRESS / OFFICE: Melbourne				MOBILE 1: +61 400 826 907 (Craig Trimbur)																	
PROJECT MANAGER (PM): Craig Trimbur				MOBILE 2: +61 490 411 004 (David Lawson)																	
PROJECT ID: JC0927				EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au																	
SITE: 20220429042837-ALS-21 P.O. NO.:				RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP				EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au													
FOR LABORATORY USE ONLY COOLER SEAL (circle appropriate) Intact: Yes No N/A SAMPLE TEMPERATURE CHILLED: Yes No								COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:								ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)					
SAMPLE INFORMATION (note: S = Soil, W=Water)								CONTAINER INFORMATION								Notes: Environmental Division Melbourne Work Order Reference EM2207664  Telephone : + 61-3-8549 9600					
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spoil Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite	Hold									
14 15 16 17 18 19	1	SX_IB_20220428_07_45_SS_Primary_ALS	S	28/04/2022	07:45	Bucket	1	X	X	X	X	X									
	2	SX_IB_20220428_07_47_SS_Duplicate_ALS	S	28/04/2022	07:47	Bucket	1	X	X	X	X	X									
	3	SX_IB_20220428_11_48_SS_Primary_ALS	S	28/04/2022	11:48	Bucket	1	X	X	X	X	X									
	4	SX_IB_20220428_11_57_SS_Primary_ALS	S	28/04/2022	11:57	Bucket	1						X								
	5	SX_IB_20220428_13_31_SR_Primary_ALS	W	28/04/2022	13:31	Bottle	1														
	6	SX_IB_20220428_13_33_SB_Primary_ALS	W	28/04/2022	13:33	Bottle	1			X											
	7	SX_IB_20220428_15_50_SS_Primary_ALS	S	28/04/2022	15:50	Bucket	1						X								
	8	SX_IB_20220428_15_50_SS_Duplicate_ALS	S	28/04/2022	15:50	Bucket	1						X								
	9	SX_IB_20220428_15_59_SS_Primary_ALS	S	28/04/2022	15:59	Bucket	1	X	X	X	X	X									
	10	SX_IB_20220429_00_03_SS_Triplicate_ALS	S	29/04/2022	00:03	Bucket	1	X	X	X	X	X									
	11	SX_IB_20220429_00_05_SS_Primary_ALS	S	29/04/2022	00:05	Bucket	1						X								
	12	SX_IB_20220429_04_09_SS_Primary_ALS	S	29/04/2022	04:09	Bucket	1						X								
	13	SX_IB_20220429_04_11_SS_Primary_ALS	S	29/04/2022	4:11	Bucket	1	X	X	X	X	X									
RELINQUISHED BY:								RECEIVED BY								METHOD OF SHIPMENT					
Name:				Date:				Name:				Date:				Con' Note No:					
Of:				Time:				Of:				Time:									
Name:				Date:				Name:				Date:				Transport Co:					
Of:				Time:				Of:				Time:									
Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.																					

Received: 29/4, 12:22 Carrier: courier
 C/note:
 Temp: 20.3 °C Seal: Y
 Ice / Icebricks / N/A


CERTIFICATE OF ANALYSIS

Work Order : **EM2207664**
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 : 20220429042837-ALS-21
Sampler : WOH + DB + AV + LR
Site : 20220429042837-ALS-21
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 19
No. of samples analysed : 14

Page : 1 of 28
Laboratory : Environmental Division Melbourne
Contact : Josh Alexander
Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +61-3-8549 9600
Date Samples Received : 29-Apr-2022 12:22
Date Analysis Commenced : 29-Apr-2022
Issue Date : 06-May-2022 11:59



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>
Andrew Lu	VOC Section Supervisor	Melbourne Organics, 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.

- EP231X: Poor matrix spike recovery for sample EM2207664-015 due to sample matrix interference.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- 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

		Sampling date / time		SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010
				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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010
				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	%	88.2	99.6	94.0	92.3	97.0
13C8-PFOA	----	0.02	%	93.4	93.7	92.8	95.3	94.0



Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)		Sample ID		SX_IB_20220429_04_11_SS_Primary_ALS	----	----	----	----
Sampling date / time		29-Apr-2022 04:11		----	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2207664-013	-----	-----	-----	-----
				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_20220429_04_
 11_SS_Primary_ALS

				Sampling date / time				
Compound	CAS Number	LOR	Unit					
				29-Apr-2022 04:11	----	----	----	----
				EM2207664-013	-----	-----	-----	-----
				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	%	92.4	----	----	----	----
13C8-PFOA	----	0.02	%	95.4	----	----	----	----



Analytical Results

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

Sample ID

		Sampling date / time		SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Compound	CAS Number	LOR	Unit	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017	EM2207664-018
				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 (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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59	29-Apr-2022 00:03
Compound	CAS Number	LOR	Unit	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017	EM2207664-018
				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	%	88.2	92.6	89.4	87.0	89.7
13C8-PFOA	----	0.02	%	86.5	95.1	95.9	90.7	102



Analytical Results

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

Sample ID

SX_IB_20220429_04_
 11_SS_Primary_ALS

Sampling date / time		LOR		Unit	Result				
Compound	CAS Number								
29-Apr-2022 04:11									
EM2207664-019									
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_20220429_04_
 11_SS_Primary_ALS

				Sampling date / time				
Compound	CAS Number	LOR	Unit					
				29-Apr-2022 04:11	----	----	----	----
				EM2207664-019	-----	-----	-----	-----
				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	%	88.7	----	----	----	----
13C8-PFOA	----	0.02	%	88.1	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03	
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	7.4	7.8	7.6	7.8	8.0	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	34.1	33.2	33.0	34.7	33.6	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	38	42	28	32	25	
Cadmium	7440-43-9	1	mg/kg	1	1	<1	<1	<1	
Chromium	7440-47-3	5	mg/kg	92	92	109	108	106	
Copper	7440-50-8	5	mg/kg	75	81	63	60	69	
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	173	171	160	160	175	
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	117	115	98	97	114	
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	210	200	210	230	240	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	9.2	9.2	9.2	9.3	9.4	
After HCl pH	----	0.1	pH Unit	1.4	1.3	1.4	1.6	1.8	
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	5.2	5.2	
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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03	
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010	
				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	
1,1,2,2-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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010
				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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010
				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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS	
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03		
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010		
				Result	Result	Result	Result	Result		
EP075I: Organochlorine Pesticides - Continued										
^ Sum of other organochlorine pesticides				----	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction				----	20	mg/kg	<20	<20	<20	<20
C10 - C14 Fraction				----	50	mg/kg	<50	<50	<50	<50
C6 - C10 Fraction				C6_C10	20	mg/kg	<20	<20	<20	<20
C15 - C28 Fraction				----	100	mg/kg	<100	<100	<100	<100
C29 - C36 Fraction				----	100	mg/kg	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)				----	50	mg/kg	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions										
>C10 - C16 Fraction				----	50	mg/kg	<50	<50	<50	<50
>C16 - C34 Fraction				----	100	mg/kg	<100	<100	<100	<100
>C34 - C40 Fraction				----	100	mg/kg	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)				----	50	mg/kg	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)				----	50	mg/kg	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)				C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20
EP231A: Perfluoroalkyl Sulfonic Acids										
Perfluorobutane sulfonic acid (PFBS)				375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)				2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)				355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)				375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)				1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)				335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0
EP231B: Perfluoroalkyl Carboxylic Acids										
Perfluorobutanoic acid (PFBA)				375-22-4	5	µg/kg	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)				2706-90-3	5.0	µg/kg	<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
Perfluoroheptanoic acid (PFHpA)				375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03	
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010	
				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_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS
Sampling date / time				28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03	
Compound	CAS Number	LOR	Unit	EM2207664-001	EM2207664-002	EM2207664-003	EM2207664-009	EM2207664-010	
				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	%	102	112	104	108	118	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	100	100	77.5	79.2	75.8	
Toluene-D8	2037-26-5	0.1	%	104	102	78.1	79.6	75.7	
4-Bromofluorobenzene	460-00-4	0.1	%	113	111	87.2	93.0	91.9	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	95.6	97.8	99.1	98.4	112	
2-Chlorophenol-D4	93951-73-6	0.025	%	89.9	91.3	92.8	92.4	105	
2,4,6-Tribromophenol	118-79-6	0.025	%	83.9	85.1	86.7	87.0	99.4	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	97.8	98.9	101	100	114	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	87.8	88.6	89.5	89.6	100	
2-Fluorobiphenyl	321-60-8	0.025	%	98.0	100	100	100	115	
Anthracene-d10	1719-06-8	0.025	%	91.5	93.7	94.9	94.6	108	
4-Terphenyl-d14	1718-51-0	0.025	%	94.2	96.3	97.7	96.6	110	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	108	108	103	106	102	
13C8-PFOA	----	0.0002	%	95.0	90.5	89.8	93.3	96.4	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID			SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
		Sampling date / time			29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	8.5	----	----	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	32.1	----	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	27	----	----	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----	
Chromium	7440-47-3	5	mg/kg	103	----	----	----	----	
Copper	7440-50-8	5	mg/kg	66	----	----	----	----	
Lead	7439-92-1	5	mg/kg	<5	----	----	----	----	
Molybdenum	7439-98-7	5	mg/kg	<5	----	----	----	----	
Nickel	7440-02-0	5	mg/kg	152	----	----	----	----	
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	101	----	----	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	----	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	----	----	----	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg	<5	----	----	----	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg	170	----	----	----	----	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	9.6	----	----	----	----	
After HCl pH	----	0.1	pH Unit	1.8	----	----	----	----	
Extraction Fluid pH	----	0.1	pH Unit	5.0	----	----	----	----	
Final pH	----	0.1	pH Unit	5.2	----	----	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	----	9.2	9.3	9.4	9.7	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
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	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
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	----	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59	
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ 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	----	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	----	----	----	----	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220428_07_45_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS	SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_15_59_SS_Primary_ALS
Sampling date / time				29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59	
Compound	CAS Number	LOR	Unit	EM2207664-013	EM2207664-014	EM2207664-015	EM2207664-016	EM2207664-017	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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	%	117	----	----	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	82.9	----	----	----	----	
Toluene-D8	2037-26-5	0.1	%	83.9	----	----	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%	94.2	----	----	----	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	107	----	----	----	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	100	----	----	----	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	94.6	----	----	----	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	109	----	----	----	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	96.3	----	----	----	----	
2-Fluorobiphenyl	321-60-8	0.025	%	109	----	----	----	----	
Anthracene-d10	1719-06-8	0.025	%	103	----	----	----	----	
4-Terphenyl-d14	1718-51-0	0.025	%	105	----	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	105	----	----	----	----	
13C8-PFOA	----	0.0002	%	97.4	----	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220429_00_03_SS_Triplicate_ALS	SX_IB_20220429_04_11_SS_Primary_ALS	----	----	----
Sampling date / time				29-Apr-2022 00:03	29-Apr-2022 04:11	----	----	----	
Compound	CAS Number	LOR	Unit	EM2207664-018	EM2207664-019	-----	-----	-----	
				Result	Result	---	---	---	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	9.6	10.0	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_IB_20220428_13_31_SR_Primary_ALS	SX_IB_20220428_13_33_SB_Primary_ALS	----	----	----
Sampling date / time			28-Apr-2022 13:31		28-Apr-2022 13:33		----	----	----
Compound	CAS Number	LOR	Unit	EM2207664-005	EM2207664-006	-----	-----	-----	
				Result	Result	---	---	---	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L	<0.10	<0.10	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_IB_20220428_13_31_SR_Primary_ALS	SX_IB_20220428_13_33_SB_Primary_ALS	----	----	----
Sampling date / time				28-Apr-2022 13:31	28-Apr-2022 13:33	----	----	----	
Compound	CAS Number	LOR	Unit	EM2207664-005	EM2207664-006	-----	-----	-----	
				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	%	91.6	96.2	----	----	----	
13C8-PFOA	----	0.02	%	98.4	96.8	----	----	----	



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	: EM2207664	Page	: 1 of 20
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON		
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: david.lawson@agonenviro.com.au	E-mail	: Josh.Alexander@alsglobal.com
Telephone	: ----	Telephone	: +61-3-8549 9600
Facsimile	: ----	Facsimile	: +61-3-8549 9626
Project	: JC0927	Date Received	: 29-Apr-2022 12:22
Order number	: ----	Date Analysed	: 29-Apr-2022
C-O-C number	: 20220429042837-ALS-21	Date Issued	: 06-May-2022 11:59
No. of samples received	: 19		
No. of samples analysed	: 14	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_20220428_07_45_S S_Primary_ALS	EM2207664-001	Arsenic	EG005T	5	< 20 mg/kg	38 mg/kg
SX_IB_20220428_07_45_S S_Primary_ALS	EM2207664-001	Nickel	EG005T	5	< 60 mg/kg	173 mg/kg
SX_IB_20220428_07_47_S S_Duplicate_ALS	EM2207664-002	Arsenic	EG005T	5	< 20 mg/kg	42 mg/kg
SX_IB_20220428_07_47_S S_Duplicate_ALS	EM2207664-002	Nickel	EG005T	5	< 60 mg/kg	171 mg/kg
SX_IB_20220428_11_48_S S_Primary_ALS	EM2207664-003	Arsenic	EG005T	5	< 20 mg/kg	28 mg/kg
SX_IB_20220428_11_48_S S_Primary_ALS	EM2207664-003	Nickel	EG005T	5	< 60 mg/kg	160 mg/kg
SX_IB_20220428_15_59_S S_Primary_ALS	EM2207664-009	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg
SX_IB_20220428_15_59_S S_Primary_ALS	EM2207664-009	Nickel	EG005T	5	< 60 mg/kg	160 mg/kg
SX_IB_20220429_00_03_S S_Triplicate_ALS	EM2207664-010	Arsenic	EG005T	5	< 20 mg/kg	25 mg/kg
SX_IB_20220429_00_03_S S_Triplicate_ALS	EM2207664-010	Nickel	EG005T	5	< 60 mg/kg	175 mg/kg
SX_IB_20220429_04_11_S S_Primary_ALS	EM2207664-013	Arsenic	EG005T	5	< 20 mg/kg	27 mg/kg
SX_IB_20220429_04_11_S S_Primary_ALS	EM2207664-013	Nickel	EG005T	5	< 60 mg/kg	152 mg/kg



Analytical Results

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		Guideline	Guideline	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Sampling date/time				428_07_45_S	428_07_47_S	428_11_48_S	428_15_59_S	429_00_03_S
				Lower Limit	Upper Limit			S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS	S_Triplicate_ALS
							28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03	
							EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 MU	
EA001: pH in soil using 0.01M CaCl extract												
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5		7.4 ±0.1	7.8 ±0.1	7.6 ±0.1	7.8 ±0.1	8.0 ±0.1	
EG005(ED093)T: Total Metals by ICP-AES												
Arsenic	EG005T	5	mg/kg	----	2000		38 ±5	42 ±6	28 ±4	32 ±4	25 ±4	
Cadmium	EG005T	1	mg/kg	----	400		1 ±0.2	1 ±0.2	<1 --	<1 --	<1 --	
Copper	EG005T	5	mg/kg	----	20000		75 ±9	81 ±10	63 ±8	60 ±7	69 ±8	
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		173 ±17	171 ±17	160 ±16	160 ±16	175 ±17	
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		117 ±13	115 ±13	98 ±11	97 ±11	114 ±12	
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 --	<1.0 --	<1.0 --	<1.0 --	<1.0 --	
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		210 ±40	200 ±40	210 ±40	230 ±40	240 ±50	
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 --	



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 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S	SX_IB_20220 429_00_03_S S_Triplicate_ ALS
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
						EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 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 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S	SX_IB_20220 429_00_03_S S_Triplicate_ ALS
				Guideline	Guideline	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
				Lower Limit	Upper Limit	EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.4 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	7.8 ± 0.1	8.0 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	38 ± 5	42 ± 6	28 ± 4	32 ± 4	25 ± 4
Cadmium	EG005T	1	mg/kg	----	100	1 ± 0.2	1 ± 0.2	<1 --	<1 --	<1 --
Copper	EG005T	5	mg/kg	----	5000	75 ± 9	81 ± 10	63 ± 8	60 ± 7	69 ± 8
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	173 ± 17	171 ± 17	160 ± 16	160 ± 16	175 ± 17
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	117 ± 13	115 ± 13	98 ± 11	97 ± 11	114 ± 12
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 --	<1.0 --	<1.0 --	<1.0 --	<1.0 --
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	210 ± 40	200 ± 40	210 ± 40	230 ± 40	240 ± 50
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_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	428_07_45_S	428_07_47_S	428_11_48_S	428_15_59_S	429_00_03_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS	S_Triplicate_ALS
				Lower Limit	Upper Limit	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
						EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 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 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S	SX_IB_20220 429_00_03_S S_Triplicate_ ALS
				Guideline	Guideline	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
				Lower Limit	Upper Limit	EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.4 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	7.8 ± 0.1	8.0 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	38 ± 5	42 ± 6	28 ± 4	32 ± 4	25 ± 4
Cadmium	EG005T	1	mg/kg	----	3	1 ± 0.2	1 ± 0.2	<1 --	<1 --	<1 --
Copper	EG005T	5	mg/kg	----	100	75 ± 9	81 ± 10	63 ± 8	60 ± 7	69 ± 8
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	173 ± 17	171 ± 17	160 ± 16	160 ± 16	175 ± 17
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	117 ± 13	115 ± 13	98 ± 11	97 ± 11	114 ± 12
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 --	<1.0 --	<1.0 --	<1.0 --	<1.0 --
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	210 ± 40	200 ± 40	210 ± 40	230 ± 40	240 ± 50
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_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	428_07_45_S	428_07_47_S	428_11_48_S	428_15_59_S	429_00_03_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS	S_Triplicate_ALS
				Lower Limit	Upper Limit	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	28-Apr-2022 15:59	29-Apr-2022 00:03
						EM2207664-001 MU	EM2207664-002 MU	EM2207664-003 MU	EM2207664-009 MU	EM2207664-010 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_IB_20220 429_04_11_S S_Primary_AL S	SX_IB_20220 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S	
				Sampling date/time	Guideline						Guideline
				Lower Limit	Upper Limit						
						29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59	
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU	
EA001: pH in soil using 0.01M CaCl extract											
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5	8.5 ± 0.1	----	----	----	----	
EG005(ED093T): Total Metals by ICP-AES											
Arsenic	EG005T	5	mg/kg	----	2000	27 ± 4	----	----	----	----	
Cadmium	EG005T	1	mg/kg	----	400	<1 --	----	----	----	----	
Copper	EG005T	5	mg/kg	----	20000	66 ± 8	----	----	----	----	
Lead	EG005T	5	mg/kg	----	6000	<5 --	----	----	----	----	
Molybdenum	EG005T	5	mg/kg	----	4000	<5 --	----	----	----	----	
Nickel	EG005T	5	mg/kg	----	12000	152 ± 15	----	----	----	----	
Selenium	EG005T	5	mg/kg	----	200	<5 --	----	----	----	----	
Silver	EG005T	2	mg/kg	----	720	<2 --	----	----	----	----	
Zinc	EG005T	5	mg/kg	----	140000	101 ± 11	----	----	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 --	----	----	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	<1.0 --	----	----	----	----	
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 --	----	----	----	----	
EK040T: Fluoride Total											
Fluoride	EK040T	100	mg/kg	----	40000	170 ± 40	----	----	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 --	----	----	----	----	
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	240	<0.5 --	----	----	----	----	
EP074I: Volatile Halogenated Compounds											
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 --	----	----	----	----	
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<0.50 --	----	----	----	----	
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	50	<0.50 --	----	----	----	----	
EP075A: Phenolic Compounds (Halogenated)											
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 --	----	----	----	----	
EP075A: Phenolic Compounds (Non-halogenated)											
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<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_IB_20220 429_04_11_S S_Primary_AL S	SX_IB_20220 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU
EP075B: Polynuclear Aromatic Hydrocarbons - Continued										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5	--	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5	--	----	----	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05	--	----	----	----
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30	--	----	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	--	----	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10	--	----	----	----
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03	--	----	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20	--	----	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<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 429_04_11_S S_Primary_AL S	SX_IB_20220 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S	
				Sampling date/time	Guideline						Guideline
				Lower Limit	Upper Limit						
						29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59	
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU	
EA001: pH in soil using 0.01M CaCl extract											
pH (CaCl2)	EA001	0.1	pH Unit	4	9	8.5 ± 0.1	----	----	----	----	
EG005(ED093T): Total Metals by ICP-AES											
Arsenic	EG005T	5	mg/kg	----	500	27 ± 4	----	----	----	----	
Cadmium	EG005T	1	mg/kg	----	100	<1 --	----	----	----	----	
Copper	EG005T	5	mg/kg	----	5000	66 ± 8	----	----	----	----	
Lead	EG005T	5	mg/kg	----	1500	<5 --	----	----	----	----	
Molybdenum	EG005T	5	mg/kg	----	1000	<5 --	----	----	----	----	
Nickel	EG005T	5	mg/kg	----	3000	152 ± 15	----	----	----	----	
Selenium	EG005T	5	mg/kg	----	50	<5 --	----	----	----	----	
Silver	EG005T	2	mg/kg	----	180	<2 --	----	----	----	----	
Tin	EG005T	10	mg/kg	----	500	<10 --	----	----	----	----	
Zinc	EG005T	5	mg/kg	----	35000	101 ± 11	----	----	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	----	----	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	<1.0 --	----	----	----	----	
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 --	----	----	----	----	
EK040T: Fluoride Total											
Fluoride	EK040T	100	mg/kg	----	10000	170 ± 40	----	----	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 --	----	----	----	----	
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 --	----	----	----	----	
EP074I: Volatile Halogenated Compounds											
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 --	----	----	----	----	
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 --	----	----	----	----	
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 --	----	----	----	----	
EP075A: Phenolic Compounds (Halogenated)											
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 --	----	----	----	----	
EP075A: Phenolic Compounds (Non-halogenated)											
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<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_IB_20220 429_04_11_S S_Primary_AL S	SX_IB_20220 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5	--	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5	--	----	----	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05	--	----	----	----
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30	--	----	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	--	----	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10	--	----	----	----
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03	--	----	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20	--	----	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<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 429_04_11_S S_Primary_AL S	SX_IB_20220 428_07_45_S S_Primary_AL S	SX_IB_20220 428_07_47_S S_Duplicate_ ALS	SX_IB_20220 428_11_48_S S_Primary_AL S	SX_IB_20220 428_15_59_S S_Primary_AL S
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	8.5 ± 0.1	----	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	27 ± 4	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	3	<1 --	----	----	----	----
Copper	EG005T	5	mg/kg	----	100	66 ± 8	----	----	----	----
Lead	EG005T	5	mg/kg	----	300	<5 --	----	----	----	----
Molybdenum	EG005T	5	mg/kg	----	40	<5 --	----	----	----	----
Nickel	EG005T	5	mg/kg	----	60	152 ± 15	----	----	----	----
Selenium	EG005T	5	mg/kg	----	10	<5 --	----	----	----	----
Silver	EG005T	2	mg/kg	----	10	<2 --	----	----	----	----
Tin	EG005T	10	mg/kg	----	50	<10 --	----	----	----	----
Zinc	EG005T	5	mg/kg	----	200	101 ± 11	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 --	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	<1.0 --	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 --	----	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	450	170 ± 40	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 --	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 --	----	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 --	----	----	----	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 --	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 --	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<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		Guideline	Guideline	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				429_04_11_S	428_07_45_S			428_07_47_S	428_11_48_S	428_15_59_S		
				S_Primary_ALS	S_Primary_ALS			S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS		
				Lower Limit	Upper Limit	29-Apr-2022 04:11	28-Apr-2022 07:45	28-Apr-2022 07:47	28-Apr-2022 11:48	29-Apr-2022 15:59		
						EM2207664-013 MU	EM2207664-014 MU	EM2207664-015 MU	EM2207664-016 MU	EM2207664-017 MU		
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5	--	----	----	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5	--	----	----	----	----	----
EP075I: Organochlorine Pesticides												
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10	--	----	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20	--	----	----	----	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<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		Guideline Lower Limit	Guideline Upper Limit	SX_IB_20220 429_00_03_S S_Triplicate_ ALS	SX_IB_20220 429_04_11_S S_Primary_AL S	----	----	----
				Sampling date/time	29-Apr-2022 00:03			29-Apr-2022 04:11	----	----	----	
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		Guideline	Guideline	SX_IB_20220 429_00_03_S S_Triplicate_ ALS	SX_IB_20220 429_04_11_S S_Primary_AL S	----	----	----
				Lower Limit	Upper Limit							
				Sampling date/time								
								29-Apr-2022 00:03	29-Apr-2022 04:11	----	----	----
								EM2207664-018 MU	EM2207664-019 MU			
EP075B: Polynuclear Aromatic Hydrocarbons - Continued												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	----							
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	----							
EP075I: Organochlorine Pesticides												
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	----							
Heptachlor	EP075-EM	0.05	mg/kg	----	----							
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	----							
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	----							
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	----							
EP080/071: Total Petroleum Hydrocarbons												
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	----							
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	----							



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		Guideline	Guideline	SX_IB_20220 429_00_03_S S_Triplicate_ ALS	SX_IB_20220 429_04_11_S S_Primary_AL S	----	----	----
				Sampling date/time	Lower Limit							
								29-Apr-2022 00:03	29-Apr-2022 04:11			
								EM2207664-018 MU	EM2207664-019 MU			
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	----							
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	----							
EP075I: Organochlorine Pesticides												
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	----							
Heptachlor	EP075-EM	0.05	mg/kg	----	----							
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	----							
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	----							
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	----							
EP080/071: Total Petroleum Hydrocarbons												
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	----							
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	----							

QUALITY CONTROL REPORT

Work Order	: EM2207664	Page	: 1 of 31
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	: 29-Apr-2022
Order number	: ----	Date Analysis Commenced	: 29-Apr-2022
C-O-C number	: 20220429042837-ALS-21	Issue Date	: 06-May-2022
Sampler	: WOH + DB + AV + LR		
Site	: 20220429042837-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 19		
No. of samples analysed	: 14		



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>
Andrew Lu	VOC Section Supervisor	Melbourne Organics, 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: 4313805)									
EM2207625-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
EM2207758-004	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	50	47	4.3	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	34	22	41.5	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	12	13	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	25	23	6.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	60	60	0.0	0% - 50%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	63	71	12.2	0% - 50%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4317687)									



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: 4317687) - continued									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.4	7.5	0.0	0% - 20%
EM2207719-006	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.6	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4315804)									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EA055: Moisture Content	----	0.1	%	34.1	31.0	9.5	0% - 20%
EM2207719-007	Anonymous	EA055: Moisture Content	----	0.1	%	29.4	25.5	14.2	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4313804)									
EM2207625-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2207758-004	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.6	0.8	21.1	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4316693)									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2207719-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4319099)									
EM2207519-021	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2207535-008	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4319100)									
EM2207664-003	SX_IB_20220428_11_48_S S_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2207719-007	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4316697)									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	210	180	12.6	No Limit
EM2207719-006	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	170	150	13.8	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4316043)									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2207807-018	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4313448)									
EM2207519-021	Anonymous	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
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4313448) - continued									
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	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: 4313448)									
EM2207519-021	Anonymous	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4313448)									
EM2207519-021	Anonymous	EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	<0.04	0.0	No Limit
		EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	<0.4	0.0	No Limit
		EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50
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



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: 4313448) - continued										
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	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: 4316045)										
EM2207664-001	SX_IB_20220428_07_45_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	
EM2207807-018	Anonymous	EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit	
		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			
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4316045)	EM2207664-001	SX_IB_20220428_07_45_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



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4316045) - continued									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EM2207807-018	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4316045)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207807-018	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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: 4316045) - continued									
EM2207807-018	Anonymous	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: 4316045)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207807-018	Anonymous	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



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: 4316045) - continued									
EM2207807-018	Anonymous	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: 4313448)									
EM2207519-021	Anonymous	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4316044)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207807-018	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4313448)									
EM2207519-021	Anonymous	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	0.0	No Limit
EM2207664-002	SX_IB_20220428_07_47_S S_Duplicate_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: 4316044)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207807-018	Anonymous	EP071-EM: >C16 - C34 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 Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4316044) - continued									
EM2207807-018	Anonymous	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: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2207719-005	Anonymous	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: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
		EM2207719-005	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050
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: 4315022)									



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: 4315022) - continued									
EM2207535-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2207719-005	Anonymous	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2207719-005	Anonymous	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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022) - continued									
EM2207719-005	Anonymous	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: 4315022)									
EM2207535-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
EM2207719-005	Anonymous	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: 4316313)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207719-006	Anonymous	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2207664-014	SX_IB_20220428_07_45_S S_Primary_ALS	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		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
EM2207787-007	Anonymous	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.14	0.16	9.8	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.26	0.30	12.7	0% - 20%
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.14	0.13	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: 4316351) - continued									
EM2207787-007	Anonymous	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: 4320960)									
EM2207664-005	SX_IB_20220428_13_31_S R_Primary_ALS	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4316313)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207719-006	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4316351)									



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: 4316351) - continued									
EM2207664-014	SX_IB_20220428_07_45_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		
EM2207787-007	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.30	0.29	0.0	0% - 50%
		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: 4320960)									
EM2207664-005	SX_IB_20220428_13_31_S R_Primary_ALS	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4316313)									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4316313) - continued									
EM2207664-001	SX_IB_20220428_07_45_S S_Primary_ALS	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
EM2207719-006	Anonymous	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: 4316351)									
EM2207664-014	SX_IB_20220428_07_45_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2207787-007	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit



Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4316351) - continued									
EM2207787-007	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4320960)									
EM2207664-005	SX_IB_20220428_13_31_S R_Primary_ALS	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	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: 4316313)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207719-006	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



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: 4316313) - continued									
EM2207719-006	Anonymous	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: 4316351)									
EM2207664-014	SX_IB_20220428_07_45_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
EM2207787-007	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: 4320960)									
EM2207664-005	SX_IB_20220428_13_31_S R_Primary_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4316313)									
EM2207664-001	SX_IB_20220428_07_45_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
EM2207719-006	Anonymous	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: 4316351)									

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 Work Order : EM2207664
 Client : AGON ENVIRONMENTAL PTY LTD
 Project : JC0927



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 (%)
EP231P: PFAS Sums (QC Lot: 4316351) - continued									
EM2207664-014	SX_IB_20220428_07_45_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
EM2207787-007	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.98	1.03	5.0	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.40	0.46	14.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.88	0.93	5.5	0% - 20%
EP231P: PFAS Sums (QC Lot: 4320960)									
EM2207664-005	SX_IB_20220428_13_31_S R_Primary_ALS	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	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	<0.05	<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: 4313805)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	98.1	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	62.1	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	102	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	99.4	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	89.0	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	94.2	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	94.1	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	80.8	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	101	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	72.2	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4314376)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4317687)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101
				----	7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4313804)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	112	70.0	130
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	79.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319099)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	83.3	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319100)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	77.3	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	92.5	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316043)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	105	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4313448)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	77.5	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	77.7	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	77.4	66.6	115



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4313448) - continued									
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	75.1	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	78.3	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	76.6	68.4	110	
EP074H: Naphthalene (QCLot: 4313448)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	76.8	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4313448)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	72.8	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	71.2	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	77.8	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	75.9	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	75.8	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	76.8	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	72.1	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	68.0	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	80.2	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	75.6	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	79.8	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	74.2	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	71.8	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	81.2	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	77.4	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	83.4	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	77.6	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	78.6	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	82.8	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316045)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	83.0	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	84.9	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	85.6	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	91.7	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	83.9	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	85.2	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	88.0	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	82.0	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316045)									



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 (Non-halogenated) (QCLot: 4316045) - continued									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	88.2	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	83.5	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	82.2	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	82.6	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	84.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	70.8	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	82.5	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.5	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	82.8	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	74.8	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316045)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	86.7	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	87.0	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	88.4	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	88.6	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	85.4	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	84.6	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	88.0	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.8	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	84.2	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	85.9	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	90.9	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	88.9	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	81.8	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	81.4	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	83.0	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4316045)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	85.8	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	83.6	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	87.5	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	87.2	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	85.0	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	88.6	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	86.3	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	88.5	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	89.2	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	86.5	69.4	134	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
EP075I: Organochlorine Pesticides (QCLot: 4316045) - continued								
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	83.5	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	81.8	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	# 68.2	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	62.0	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	79.3	71.4	135
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	81.2	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	79.6	70.2	135
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	80.6	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	83.0	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4313448)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	74.1	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316044)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	91.9	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	104	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	101	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: 4313448)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	73.3	59.9	119
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316044)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	94.3	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	113	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	92.1	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	108	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	94.1	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	89.0	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	70.1	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	96.7	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	88.6	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	85.7	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	79.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.0	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	69.0	133



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022) - continued									
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.7	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.8	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.8	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.6	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.1	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.0	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.4	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	98.6	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	94.0	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	106	65.0	137	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	102	70.0	130	
EP231P: PFAS Sums (QCLot: 4315022)									
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	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4316313)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	91.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	87.7	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	87.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.2	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	93.4	53.0	142	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4316351)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	86.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	108	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	98.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	98.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4320960)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	84.8	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	90.3	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	79.7	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	92.5	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	84.5	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	86.1	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316313)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	83.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	90.9	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	90.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.3	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	90.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	98.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.5	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.5	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	89.6	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316351)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	86.9	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	89.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	86.5	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.3	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	78.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	91.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.1	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	124	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4320960)								



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: 4320960) - continued									
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	78.8	73.0	129	
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	90.4	72.0	129	
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	89.8	72.0	129	
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	92.0	72.0	130	
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	86.5	71.0	133	
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	99.2	69.0	130	
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	81.4	71.0	129	
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	93.5	69.0	133	
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	89.3	72.0	134	
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	82.3	65.0	144	
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	92.4	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316313)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.7	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	105	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.6	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	93.4	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.5	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316351)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.9	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	115	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	112	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.8	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	99.9	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	102	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4320960)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	87.6	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	88.3	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: 4320960) - continued								
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	83.8	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	74.3	70.0	130
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	85.3	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	99.3	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	93.5	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316313)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	98.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	93.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	105	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	83.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316351)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	92.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	79.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4320960)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	92.7	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	90.3	64.0	140
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.48 µg/L	98.9	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	89.9	70.0	130
EP231P: PFAS Sums (QCLot: 4316313)								
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: 4316351)								
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: 4320960)								
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	----	----	----	----



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: 4320960) - continued									
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**

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: 4313805)							
EM2207651-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	105	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	98.2	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	97.4	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	103	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	99.1	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	97.7	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	93.6	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4313804)							
EM2207651-001	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	113	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	87.3	58.0	114
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	101	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319099)							
EM2207519-022	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	82.7	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319100)							
EM2207664-009	SX_IB_20220428_15_59_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	79.6	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	76.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316043)							
EM2207664-003	SX_IB_20220428_11_48_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	103	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4313448)							
EM2207519-022	Anonymous	EP074-UT: Benzene	71-43-2	2 mg/kg	78.9	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	91.8	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4313448)							
EM2207519-022	Anonymous	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	51.3	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	75.5	48.1	128



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP074I: Volatile Halogenated Compounds (QCLot: 4313448) - continued							
EM2207519-022	Anonymous	EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	88.0	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316045)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	85.1	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	88.2	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	78.0	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316045)							
EM2207664-002	SX_IB_20220428_07_47_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	79.1	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316045)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	79.5	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	85.5	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4313448)							
EM2207519-022	Anonymous	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	75.7	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316044)							
EM2207664-009	SX_IB_20220428_15_59_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	94.8	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	107	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	103	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	104	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4313448)							
EM2207519-022	Anonymous	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	74.0	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316044)							
EM2207664-009	SX_IB_20220428_15_59_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	97.0	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	116	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	95.3	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	111	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	87.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	75.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	91.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	101	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	95.5	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	84.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	76.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	91.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	88.4	70.0	132



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: 4315022) - continued							
EM2207617-001	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.7	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	88.3	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	74.0	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	84.1	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	85.7	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	73.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	89.2	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	93.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	85.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	74.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	78.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	85.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.8	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	85.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	98.1	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	97.6	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	76.4	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: 4316313)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	94.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	83.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	89.9	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	88.3	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	110	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	118	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4316351)							
EM2207664-015	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	94.4	72.0	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: 4316351) - continued							
EM2207664-015	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	111	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	105	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	120	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	98.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	92.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4320960)							
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	91.3	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	87.6	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	78.5	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	94.0	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	89.6	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	86.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316313)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	83.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	97.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	102	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	94.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	93.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	101	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	94.9	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	94.9	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316351)							
EM2207664-015	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	84.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	88.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	98.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	82.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	98.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	74.1	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	88.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	67.5	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	85.6	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4320960)					
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	81.7	73.0	129



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4320960) - continued							
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	91.9	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	92.0	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	94.7	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	90.7	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	105	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	85.0	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	93.1	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	95.7	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	86.6	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	94.1	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316313)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	109	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	94.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	99.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316351)							
EM2207664-015	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	96.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	70.3	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	76.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	89.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	84.9	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	86.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4320960)							
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	92.1	67.0	137



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: 4320960) - continued							
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	93.0	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	82.5	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	76.9	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	85.5	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	100	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	94.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316313)							
EM2207664-002	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	94.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	71.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316351)							
EM2207664-015	SX_IB_20220428_07_47_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	98.8	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	107	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 51.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4320960)							
EM2207664-006	SX_IB_20220428_13_33_SB_Primary_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	101	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	101	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	87.1	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2207664	Page	: 1 of 12
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 29-Apr-2022
Site	: 20220429042837-ALS-21	Issue Date	: 06-May-2022
Sampler	: WOH + DB + AV + LR	No. of samples received	: 19
Order number	: ----	No. of samples analysed	: 14

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP075I: Organochlorine Pesticides	QC-4316045-001	----	Endrin aldehyde	7421-93-4	68.2 %	69.0-143%	Recovery less than lower control limit

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2207664--015	SX_IB_20220428_07_47_SS_	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	51.7 %	70.0-130%	Recovery less than lower data quality objective

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	05-May-2022	✓	04-May-2022	04-May-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	06-May-2022	✓	04-May-2022	04-May-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	----	----	----	03-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	----	----	----	03-May-2022	13-May-2022	✓
EG005(ED093): Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-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_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	05-May-2022	26-May-2022	✓	05-May-2022	26-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	05-May-2022	27-May-2022	✓	05-May-2022	27-May-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	26-May-2022	✓	04-May-2022	10-May-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	27-May-2022	✓	04-May-2022	10-May-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	05-May-2022	18-May-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	05-May-2022	18-May-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	26-May-2022	✓	06-May-2022	26-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	27-May-2022	✓	06-May-2022	27-May-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_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	25-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	26-Oct-2022	✓	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS	SX_IB_20220428_07_47_SS_Duplicate_ALS,	28-Apr-2022	02-May-2022	25-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	SX_IB_20220429_00_03_SS_Triplicate_ALS,	29-Apr-2022	02-May-2022	26-Oct-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-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	
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	05-May-2022	✓	02-May-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	05-May-2022	✓	02-May-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	05-May-2022	✓	02-May-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-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_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	05-May-2022	✓	02-May-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	02-May-2022	05-May-2022	✓	02-May-2022	05-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	04-May-2022	12-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	25-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	25-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	25-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-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	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	25-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS	28-Apr-2022	03-May-2022	25-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220429_04_11_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-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_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS, SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS, SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_IB_20220428_13_31_SR_Primary_ALS,	SX_IB_20220428_13_33_SB_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS, SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS, SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓
HDPE (no PTFE) (EP231X-INJ) SX_IB_20220428_13_31_SR_Primary_ALS,	SX_IB_20220428_13_33_SB_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-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_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS, SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS, SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220428_13_31_SR_Primary_ALS,	SX_IB_20220428_13_33_SB_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-2022	✓	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE (no PTFE) (EP231X)									
SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS, SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS, SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220428_13_31_SR_Primary_ALS,	SX_IB_20220428_13_33_SB_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-2022	✓	
EP231P: PFAS Sums									
HDPE (no PTFE) (EP231X)									
SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS, SX_IB_20220428_07_45_SS_Primary_ALS, SX_IB_20220428_11_48_SS_Primary_ALS, SX_IB_20220429_00_03_SS_Triplicate_ALS,	SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS, SX_IB_20220428_07_47_SS_Duplicate_ALS, SX_IB_20220428_15_59_SS_Primary_ALS, SX_IB_20220429_04_11_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220428_13_31_SR_Primary_ALS,	SX_IB_20220428_13_33_SB_Primary_ALS	28-Apr-2022	05-May-2022	25-Oct-2022	✓	05-May-2022	25-Oct-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	Reaural	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	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	40	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	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	20	10.00	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	14	7.14	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	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.

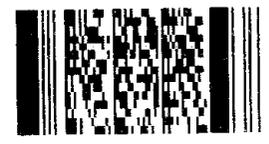


<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
QuEChERS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences 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.

CHAIN OF CUSTODY DOCUMENTATION								 Australian Laboratory Services Pty Ltd											
CLIENT: Aron Environmental				SAMPLER: [Handwritten]															
ADDRESS / OFFICE: Melbourne				MOBILE 1: +61 400 826 907 (Craig Trimbur)															
PROJECT MANAGER (PM): Craig Trimbur				MOBILE 2: +61 490 411 004 (David Lawson)															
PROJECT ID: JC0927				EMAIL REPORT TO: [Handwritten]															
SITE: [Handwritten]				P.O. NO.:															
RESULTS REQUIRED (Date):				QUOTE NO.: ME-150-19 WGTP				EMAIL INVOICE TO: (if different to report) [Handwritten]											
ANALYSIS REQUIRED including BITES (note - suite codes must be listed to attract suite prices)								Notes:											
FOR LABORATORY USE ONLY		COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:																	
COOLER SEAL (where appropriate):																			
Intact: Yes No N/A																			
SAMPLE TEMPERATURE																			
CHILLED: Yes No																			
SAMPLE INFORMATION (note: S = Soil, W = Water)				CONTAINER INFORMATION															
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spill Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite								
1	SX_IB_20220429_08_12_SS_Primary_ALS	S	29/04/2022	08:12	Bucket	1	X	X	X	X	X								
2	SX_IB_20220429_08_12_SS_Duplicate_ALS	S	29/04/2022	08:12	Bucket	1	X	X	X	X	X								
3	SX_IB_20220429_08_20_SR_Rinse_ALS	W	29/04/2022	08:20	Bottle	1			X										
4	SX_IB_20220429_08_23_SB_Blank_ALS	W	29/04/2022	08:23	Bottle	1			X										
5	SX_IB_20220429_12_08_SS_Primary_ALS	S	29/04/2022	12:08	Bucket	1	X	X	X	X	X								
6	SX_OB_20220429_16_14_SS_Triplicate_ALS	S	29/04/2022	16:14	Bucket	1	X	X	X	X	X								
7	SX_OB_20220429_18_18_SS_Primary_ALS	S	29/04/2022	18:18	Bucket	1	X	X	X	X	X								
8	SX_OB_20220429_20_00_SS_Primary_ALS	S	29/04/2022	20:00	Bucket	1	X	X	X	X	X								
9	SX_OB_20220430_00_05_SS_Primary_ALS	S	30/04/2022	00:05	Bucket	1	X	X	X	X	X								
10	SX_OB_20220430_04_05_SS_Primary_ALS	S	30/04/2022	04:05	Bucket	1	X	X	X	X	X								
RELINQUISHED BY:								RECEIVED BY:				METHOD OF SHIPMENT:							
Name: [Handwritten]		Date: 30/4		Name: [Handwritten]		Date: [Handwritten]		Con' Note No.:											
Of: [Handwritten]		Time: [Handwritten]		Name: [Handwritten]		Date: 30/4/22		Transport Co.:											
Name: [Handwritten]		Date: [Handwritten]		Name: [Handwritten]		Date: 30/4/22		Transport Co.:											
Of: [Handwritten]		Time: [Handwritten]		Name: [Handwritten]		Date: 30/4/22		Transport Co.:											
<p>Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Gd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved;</p> <p>V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;</p> <p>Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Storie Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.</p>																			

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Environmental Division
Melbourne
Work Order Reference
EM2207719



Telephone : + 61-3-8549 9600

CERTIFICATE OF ANALYSIS

Work Order : **EM2207719**
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 : 20220430052429-ALS-12
Sampler : Martha Agon / Toby Gray
Site : 20220430052429-ALS-12
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 18
No. of samples analysed : 18

Page : 1 of 29
Laboratory : Environmental Division Melbourne
Contact : Josh Alexander
Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +61-3-8549 9600
Date Samples Received : 30-Apr-2022 08:55
Date Analysis Commenced : 02-May-2022
Issue Date : 06-May-2022 15:14



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
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.

- EP231X: Poor matrix spike recovery for sample EM2207664-015 due to sample matrix interference.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- 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_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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	%	92.6	93.0	94.0	99.5	96.3
13C8-PFOA	----	0.02	%	94.1	92.3	92.4	97.0	91.9



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	----	----
		Sampling date / time		29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	----	----
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<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	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<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	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	----	----
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	----	----
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<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	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<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	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<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	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	96.6	96.7	95.8	----	----
13C8-PFOA	----	0.02	%	94.0	95.4	96.0	----	----



Analytical Results

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

Sample ID

				SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-011	EM2207719-012	EM2207719-013	EM2207719-014	EM2207719-015
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

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

Sample ID

				SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-011	EM2207719-012	EM2207719-013	EM2207719-014	EM2207719-015
				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	%	92.0	91.1	88.2	82.1	88.5
13C8-PFOA	----	0.02	%	98.8	94.3	102	91.8	93.0



Analytical Results

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

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	----	----
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	----	----
Compound	CAS Number	LOR	Unit	EM2207719-016	EM2207719-017	EM2207719-018	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<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	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<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	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

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

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	----	----
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	----	----
Compound	CAS Number	LOR	Unit	EM2207719-016	EM2207719-017	EM2207719-018	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<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	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<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	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<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	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	89.7	88.8	95.3	----	----
13C8-PFOA	----	0.02	%	95.0	89.9	93.9	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	8.9	8.8	8.8	7.6	7.7
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	33.7	33.6	32.6	31.6	29.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	29	21	21	38	40
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	86	78	82	98	86
Copper	7440-50-8	5	mg/kg	73	61	68	58	51
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	173	158	162	175	167
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	121	109	133	118	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	<1.0	<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	220	180	190	170	180
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.8	9.9	10.0	9.0	9.1
After HCl pH	----	0.1	pH Unit	1.0	1.4	1.3	1.4	1.3
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.2	5.2	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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS	SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS
Sampling date / time				29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
Compound	CAS Number	LOR	Unit	EM2207719-001	EM2207719-002	EM2207719-005	EM2207719-006	EM2207719-007
				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	%	106	110	112	109	114
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	105	106	107	109	106
Toluene-D8	2037-26-5	0.1	%	104	104	106	108	113
4-Bromofluorobenzene	460-00-4	0.1	%	101	104	104	103	113
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	87.9	86.8	91.1	94.6	93.5
2-Chlorophenol-D4	93951-73-6	0.025	%	81.2	79.0	83.7	86.9	85.4
2,4,6-Tribromophenol	118-79-6	0.025	%	73.4	75.2	76.5	80.6	77.8
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	88.2	86.1	90.7	94.1	92.8
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	80.9	79.3	83.1	85.7	84.8
2-Fluorobiphenyl	321-60-8	0.025	%	90.6	89.0	93.5	97.1	95.4
Anthracene-d10	1719-06-8	0.025	%	82.8	82.0	85.8	89.3	88.2
4-Terphenyl-d14	1718-51-0	0.025	%	87.8	88.3	90.4	93.8	92.6
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	108	104	106	109	94.2
13C8-PFOA	----	0.0002	%	89.4	88.6	93.4	91.8	90.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012
				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	7.6	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	30.0	28.6	30.2	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	33	28	20	----	----
Cadmium	7440-43-9	1	mg/kg	1	1	<1	----	----
Chromium	7440-47-3	5	mg/kg	116	107	122	----	----
Copper	7440-50-8	5	mg/kg	66	65	64	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----
Nickel	7440-02-0	5	mg/kg	198	177	178	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----
Zinc	7440-66-6	5	mg/kg	127	114	116	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<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	----	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	180	150	120	----	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	8.9	8.9	8.9	----	----
After HCl pH	----	0.1	pH Unit	1.4	1.3	1.3	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----
Final pH	----	0.1	pH Unit	5.1	5.1	5.1	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	----	10.1	10.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
EP074A: Monocyclic Aromatic Hydrocarbons								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012
				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	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<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	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<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	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<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	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12	
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----	
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
^ 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	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12	
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
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	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<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	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<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	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<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	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS	SX_OB_20220430_04_05_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Primary_ALS	SX_IB_20220429_08_12_SS_Duplicate_ALS
Sampling date / time				29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12	
Compound	CAS Number	LOR	Unit	EM2207719-008	EM2207719-009	EM2207719-010	EM2207719-011	EM2207719-012	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<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	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg	<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	----	----	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	118	108	103	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	117	100	111	----	----	
Toluene-D8	2037-26-5	0.1	%	117	99.9	112	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%	116	99.4	108	----	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	100	82.4	89.0	----	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	90.2	72.9	83.2	----	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	86.2	75.2	77.4	----	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	96.9	77.8	88.6	----	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	87.2	66.5	82.4	----	----	
2-Fluorobiphenyl	321-60-8	0.025	%	102	82.9	91.0	----	----	
Anthracene-d10	1719-06-8	0.025	%	97.0	81.3	83.5	----	----	
4-Terphenyl-d14	1718-51-0	0.025	%	101	86.5	88.0	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	121	129	132	----	----	
13C8-PFOA	----	0.0002	%	90.2	96.1	88.8	----	----	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220429_12_08_SS_Primary_ALS	SX_OB_20220429_16_14_SS_Triplicate_ALS	SX_OB_20220429_16_18_SS_Primary_ALS	SX_OB_20220429_20_00_SS_Primary_ALS	SX_OB_20220430_00_05_SS_Primary_ALS
Sampling date / time				29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18	29-Apr-2022 20:00	30-Apr-2022 00:05
Compound	CAS Number	LOR	Unit	EM2207719-013	EM2207719-014	EM2207719-015	EM2207719-016	EM2207719-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	10.2	9.1	9.1	8.9	8.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_OB_20220430_04 _05_SS_Primary_ALS	----	----	----	----
			Sampling date / time	30-Apr-2022 04:05	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2207719-018	-----	-----	-----	-----
				Result	----	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Sample ID		SX_IB_20220429_08_20_SR_Rinsate_ALS	SX_IB_20220429_08_23_SB_Blank_ALS	----	----	----
		Sampling date / time		29-Apr-2022 08:20	29-Apr-2022 08:23	----	----	----
Compound	CAS Number	LOR	Unit	EM2207719-003	EM2207719-004	-----	-----	-----
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L	<0.10	<0.10	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_IB_20220429_08_20_SR_Rinsate_ALS	SX_IB_20220429_08_23_SB_Blank_ALS	----	----	----
Sampling date / time				29-Apr-2022 08:20	29-Apr-2022 08:23	----	----	----	
Compound	CAS Number	LOR	Unit	EM2207719-003	EM2207719-004	-----	-----	-----	
				Result	Result	---	---	---	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	----	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	92.6	88.6	----	----	----	
13C8-PFOA	----	0.02	%	94.0	97.8	----	----	----	



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	: EM2207719	Page	: 1 of 26
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON		
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: david.lawson@agonenviro.com.au	E-mail	: Josh.Alexander@alsglobal.com
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Facsimile	: ----	Facsimile	: +61-3-8549 9626
Project	: JC0927	Date Received	: 30-Apr-2022 08:55
Order number	: ----	Date Analysed	: 02-May-2022
C-O-C number	: 20220430052429-ALS-12	Date Issued	: 06-May-2022 15:14
No. of samples received	: 18		
No. of samples analysed	: 18	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_20220429_08_12_S S_Primary_ALS	EM2207719-001	Arsenic	EG005T	5	< 20 mg/kg	29 mg/kg
SX_IB_20220429_08_12_S S_Primary_ALS	EM2207719-001	Nickel	EG005T	5	< 60 mg/kg	173 mg/kg
SX_IB_20220429_08_12_S S_Duplicate_ALS	EM2207719-002	Arsenic	EG005T	5	< 20 mg/kg	21 mg/kg
SX_IB_20220429_08_12_S S_Duplicate_ALS	EM2207719-002	Nickel	EG005T	5	< 60 mg/kg	158 mg/kg
SX_IB_20220429_12_08_S S_Primary_ALS	EM2207719-005	Arsenic	EG005T	5	< 20 mg/kg	21 mg/kg
SX_IB_20220429_12_08_S S_Primary_ALS	EM2207719-005	Nickel	EG005T	5	< 60 mg/kg	162 mg/kg
SX_OB_20220429_16_14_ SS_Triplicate_ALS	EM2207719-006	Arsenic	EG005T	5	< 20 mg/kg	38 mg/kg
SX_OB_20220429_16_14_ SS_Triplicate_ALS	EM2207719-006	Nickel	EG005T	5	< 60 mg/kg	175 mg/kg
SX_OB_20220429_16_18_ SS_Primary_ALS	EM2207719-007	Arsenic	EG005T	5	< 20 mg/kg	40 mg/kg
SX_OB_20220429_16_18_ SS_Primary_ALS	EM2207719-007	Nickel	EG005T	5	< 60 mg/kg	167 mg/kg
SX_OB_20220429_20_00_ SS_Primary_ALS	EM2207719-008	Arsenic	EG005T	5	< 20 mg/kg	33 mg/kg
SX_OB_20220429_20_00_ SS_Primary_ALS	EM2207719-008	Nickel	EG005T	5	< 60 mg/kg	198 mg/kg
SX_OB_20220430_00_05_ SS_Primary_ALS	EM2207719-009	Arsenic	EG005T	5	< 20 mg/kg	28 mg/kg
SX_OB_20220430_00_05_ SS_Primary_ALS	EM2207719-009	Nickel	EG005T	5	< 60 mg/kg	177 mg/kg
SX_OB_20220430_04_05_ SS_Primary_ALS	EM2207719-010	Arsenic	EG005T	5	< 20 mg/kg	20 mg/kg
SX_OB_20220430_04_05_ SS_Primary_ALS	EM2207719-010	Nickel	EG005T	5	< 60 mg/kg	178 mg/kg



Analytical Results

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		Guideline	Guideline	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Sampling date/time				429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
				Lower Limit	Upper Limit			S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
							29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18	
							EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 MU	
EA001: pH in soil using 0.01M CaCl2 extract												
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5		8.9 ± 0.1	8.8 ± 0.1	8.8 ± 0.1	7.6 ± 0.1	7.7 ± 0.1	
EG005(ED093)T: Total Metals by ICP-AES												
Arsenic	EG005T	5	mg/kg	----	2000		29 ± 4	21 ± 3	21 ± 3	38 ± 5	40 ± 5	
Cadmium	EG005T	1	mg/kg	----	400		<1 ..	<1 ..	<1 ..	<1 ..	<1 ..	
Copper	EG005T	5	mg/kg	----	20000		73 ± 9	61 ± 7	68 ± 8	58 ± 7	51 ± 6	
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		173 ± 17	158 ± 16	162 ± 16	175 ± 17	167 ± 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		121 ± 13	109 ± 12	133 ± 14	118 ± 13	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 ..	<1.0 ..	<1.0 ..	<1.0 ..	<1.0 ..	
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		220 ± 40	180 ± 40	190 ± 40	170 ± 40	180 ± 40	
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 ..	



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_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
						EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 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_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Lower Limit	Upper Limit	429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Guideline	Guideline	29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
						EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	8.9 ± 0.1	8.8 ± 0.1	8.8 ± 0.1	7.6 ± 0.1	7.7 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	29 ± 4	21 ± 3	21 ± 3	38 ± 5	40 ± 5
Cadmium	EG005T	1	mg/kg	----	100	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	5000	73 ± 9	61 ± 7	68 ± 8	58 ± 7	51 ± 6
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	173 ± 17	158 ± 16	162 ± 16	175 ± 17	167 ± 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	121 ± 13	109 ± 12	133 ± 14	118 ± 13	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 ..	<1.0 ..	<1.0 ..	<1.0 ..	<1.0 ..
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	220 ± 40	180 ± 40	190 ± 40	170 ± 40	180 ± 40
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_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
						EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 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_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Lower Limit	Upper Limit	429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Guideline	Guideline	29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
						EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	8.9 ± 0.1	8.8 ± 0.1	8.8 ± 0.1	7.6 ± 0.1	7.7 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	29 ± 4	21 ± 3	21 ± 3	38 ± 5	40 ± 5
Cadmium	EG005T	1	mg/kg	----	3	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	100	73 ± 9	61 ± 7	68 ± 8	58 ± 7	51 ± 6
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	173 ± 17	158 ± 16	162 ± 16	175 ± 17	167 ± 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	121 ± 13	109 ± 12	133 ± 14	118 ± 13	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 ..	<1.0 ..	<1.0 ..	<1.0 ..	<1.0 ..
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	220 ± 40	180 ± 40	190 ± 40	170 ± 40	180 ± 40
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_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	429_08_12_S	429_08_12_S	429_12_08_S	429_16_14_S	429_16_18_S
						S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	29-Apr-2022 08:12	29-Apr-2022 08:12	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18
						EM2207719-001 MU	EM2207719-002 MU	EM2207719-005 MU	EM2207719-006 MU	EM2207719-007 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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 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	7.6 ± 0.1	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	2000	33 ± 4	28 ± 4	20 ± 3	----	----
Cadmium	EG005T	1	mg/kg	----	400	1 ± 0.2	1 ± 0.2	<1 --	----	----
Copper	EG005T	5	mg/kg	----	20000	66 ± 8	65 ± 8	64 ± 8	----	----
Lead	EG005T	5	mg/kg	----	6000	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	4000	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	12000	198 ± 20	177 ± 17	178 ± 17	----	----
Selenium	EG005T	5	mg/kg	----	200	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	720	<2 --	<2 --	<2 --	----	----
Zinc	EG005T	5	mg/kg	----	140000	127 ± 14	114 ± 12	116 ± 13	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 --	<0.1 --	<0.1 --	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	<1.0 --	<1.0 --	<1.0 --	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 --	<5 --	<5 --	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	40000	180 ± 40	150 ± 40	120 ± 30	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	16	<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 --	----	----
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 --	<0.50 --	<0.50 --	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<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 --	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 --	<1.00 --	<1.00 --	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 --	<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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 MU
EP075B: Polynuclear Aromatic Hydrocarbons - Continued										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<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	----	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<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	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	<0.05	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<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	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20	<20	<20	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 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	7.6 ± 0.1	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	33 ± 4	28 ± 4	20 ± 3	----	----
Cadmium	EG005T	1	mg/kg	----	100	1 ± 0.2	1 ± 0.2	<1 --	----	----
Copper	EG005T	5	mg/kg	----	5000	66 ± 8	65 ± 8	64 ± 8	----	----
Lead	EG005T	5	mg/kg	----	1500	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	1000	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	3000	198 ± 20	177 ± 17	178 ± 17	----	----
Selenium	EG005T	5	mg/kg	----	50	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	180	<2 --	<2 --	<2 --	----	----
Tin	EG005T	10	mg/kg	----	500	<10 --	<10 --	<10 --	----	----
Zinc	EG005T	5	mg/kg	----	35000	127 ± 14	114 ± 12	116 ± 13	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	<1.0 --	<1.0 --	<1.0 --	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 --	<5 --	<5 --	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	10000	180 ± 40	150 ± 40	120 ± 30	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	4	<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 --	----	----
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 --	<0.50 --	<0.50 --	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<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 --	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 --	<1.00 --	<1.00 --	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 --	<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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 MU
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	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	----	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<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	----	----
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	<0.05	----	----
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<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	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20	<20	<20	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 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	7.6 ± 0.1	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	33 ± 4	28 ± 4	20 ± 3	----	----
Cadmium	EG005T	1	mg/kg	----	3	1 ± 0.2	1 ± 0.2	<1 --	----	----
Copper	EG005T	5	mg/kg	----	100	66 ± 8	65 ± 8	64 ± 8	----	----
Lead	EG005T	5	mg/kg	----	300	<5 --	<5 --	<5 --	----	----
Molybdenum	EG005T	5	mg/kg	----	40	<5 --	<5 --	<5 --	----	----
Nickel	EG005T	5	mg/kg	----	60	198 ± 20	177 ± 17	178 ± 17	----	----
Selenium	EG005T	5	mg/kg	----	10	<5 --	<5 --	<5 --	----	----
Silver	EG005T	2	mg/kg	----	10	<2 --	<2 --	<2 --	----	----
Tin	EG005T	10	mg/kg	----	50	<10 --	<10 --	<10 --	----	----
Zinc	EG005T	5	mg/kg	----	200	127 ± 14	114 ± 12	116 ± 13	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 --	<0.1 --	<0.1 --	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	<1.0 --	<1.0 --	<1.0 --	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 --	<5 --	<5 --	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	450	180 ± 40	150 ± 40	120 ± 30	----	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<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 --	----	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<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 --	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 --	<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_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	429_20_00_S	430_00_05_S	430_04_05_S	429_08_12_S	429_08_12_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	29-Apr-2022 20:00	30-Apr-2022 00:05	30-Apr-2022 04:05	29-Apr-2022 08:12	29-Apr-2022 08:12
						EM2207719-008 MU	EM2207719-009 MU	EM2207719-010 MU	EM2207719-011 MU	EM2207719-012 MU
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<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 ..	----	----
EP075I: Organochlorine Pesticides										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	<0.10 ..	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	<20 ..	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<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_IB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	429_12_08_S	429_16_14_S	429_16_18_S	429_20_00_S	430_00_05_S
						S_Primary_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	29-Apr-2022 12:08	29-Apr-2022 16:14	29-Apr-2022 16:18	29-Apr-2022 20:00	30-Apr-2022 00:05
						EM2207719-013 MU	EM2207719-014 MU	EM2207719-015 MU	EM2207719-016 MU	EM2207719-017 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	----	----	----	----	----	----	----
EG005(ED093)T: 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_OB_20220 430_04_05_S S_Primary_AL S	----	----	----	----
				Guideline	Guideline					
				Lower Limit	Upper Limit	30-Apr-2022 04:05	----	----	----	----
				EM2207719-018 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	: EM2207719	Page	: 1 of 30
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	: 30-Apr-2022
Order number	: ----	Date Analysis Commenced	: 02-May-2022
C-O-C number	: 20220430052429-ALS-12	Issue Date	: 06-May-2022
Sampler	: Martha Agon / Toby Gray		
Site	: 20220430052429-ALS-12		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 18		
No. of samples analysed	: 18		



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>
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: 4315474)									
EM2207719-001	SX_IB_20220429_08_12_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	86	90	4.4	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	173	167	3.8	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	29	24	19.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	73	64	12.1	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	121	116	4.3	0% - 20%		
EM2207807-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	82	80	2.3	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	167	154	7.8	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	22	20	9.4	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	59	54	8.2	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	118	114	3.0	0% - 20%		

EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4317687)



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: 4317687) - continued										
EM2207664-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.4	7.5	0.0	0% - 20%	
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_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: 4315804)										
EM2207664-001	Anonymous	EA055: Moisture Content	----	0.1	%	34.1	31.0	9.5	0% - 20%	
EM2207719-007	SX_OB_20220429_16_18_SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	29.4	25.5	14.2	0% - 20%	
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4315475)										
EM2207719-001	SX_IB_20220429_08_12_S_S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EM2207807-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4316693)										
EM2207664-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit	
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit	
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4319100)										
EM2207664-003	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit	
EM2207719-007	SX_OB_20220429_16_18_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit	
EK040T: Fluoride Total (QC Lot: 4316697)										
EM2207664-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	210	180	12.6	No Limit	
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	170	150	13.8	No Limit	
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4316040)										
EM2207719-001	SX_IB_20220429_08_12_S_S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EM2207807-003	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4313449)										
EM2207719-001	SX_IB_20220429_08_12_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	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: 4313449)										
EM2207719-001	SX_IB_20220429_08_12_S_S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 4313449)									
EM2207719-001	SX_IB_20220429_08_12_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: 4316042)									
EM2207719-001	SX_IB_20220429_08_12_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	4901-51-3/58-90-2	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
EM2207807-003	Anonymous	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: 4316042) - continued									
EM2207807-003	Anonymous	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: 4316042)									
EM2207719-001	SX_IB_20220429_08_12_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
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EM2207807-003	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4316042)									
EM2207719-001	SX_IB_20220429_08_12_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: 4316042) - continued									
EM2207719-001	SX_IB_20220429_08_12_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
EM2207807-003	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit		
EP075I: Organochlorine Pesticides (QC Lot: 4316042)									
EM2207719-001	SX_IB_20220429_08_12_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		



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: 4316042) - continued									
EM2207719-001	SX_IB_20220429_08_12_S S_Primary_ALS	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
EM2207807-003	Anonymous	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: 4313449)									
EM2207719-001	SX_IB_20220429_08_12_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: 4316041)									
EM2207719-001	SX_IB_20220429_08_12_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
EM2207807-003	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4313449)									
EM2207719-001	SX_IB_20220429_08_12_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



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 Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4316041)									
EM2207719-001	SX_IB_20220429_08_12_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
EM2207807-003	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
EM2207719-005	SX_IB_20220429_12_08_S S_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		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
EM2207535-002	Anonymous	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
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2207719-005	SX_IB_20220429_12_08_S S_Primary_ALS	EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	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
		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
EM2207719-005	SX_IB_20220429_12_08_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: Perfluorooctanoic acid (PFOA)	335-67-1	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: 4315022) - continued									
EM2207719-005	SX_IB_20220429_12_08_S S_Primary_ALS	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		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: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2207719-005	SX_IB_20220429_12_08_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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022) - continued									
EM2207535-002	Anonymous	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
EM2207719-005	SX_IB_20220429_12_08_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: 4315022)									
EM2207535-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
EM2207719-005	SX_IB_20220429_12_08_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				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: 4316313)									
EM2207664-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2207719-006	SX_OB_20220429_16_14_ SS_Triplicate_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4316351)									
EM2207664-014	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	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: 4316351) - continued											
EM2207664-014	Anonymous	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		
EM2207787-007	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.14	0.16	9.8	0% - 50%		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.26	0.30	12.7	0% - 20%		
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.14	0.13	0.0	No Limit		
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.10	0.10	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: 4320960)											
EM2207664-005	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit		
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit		
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4316313)											
EM2207664-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		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		
		EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
				EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.02	µg/L	<0.02	<0.02	0.0	No Limit		



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4316313) - continued									
EM2207719-006	SX_OB_20220429_16_14_ SS_Triplicate_ALS	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4316351)									
EM2207664-014	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
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
		EM2207787-007	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.02	µg/L	0.04	0.05	0.0	No Limit
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.02	µg/L	0.30	0.29	0.0	0% - 50%
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: 4320960)									
EM2207664-005	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



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: 4320960) - continued									
EM2207664-005	Anonymous	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: 4316313)									
EM2207664-001	Anonymous	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
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_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: 4316351)									
EM2207664-014	Anonymous	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: 4316351) - continued									
EM2207664-014	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2207787-007	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: 4320960)									
EM2207664-005	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	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: 4316313)									
EM2207664-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit



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: 4316313) - continued									
EM2207664-001	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
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_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: 4316351)									
EM2207664-014	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
EM2207787-007	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: 4320960)									
EM2207664-005	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: 4316313)									
EM2207664-001	Anonymous	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



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 (%)
EP231P: PFAS Sums (QC Lot: 4316313) - continued									
EM2207719-006	SX_OB_20220429_16_14_ SS_Triplicate_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: 4316351)									
EM2207664-014	Anonymous	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
EM2207787-007	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.98	1.03	5.0	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.40	0.46	14.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.88	0.93	5.5	0% - 20%
EP231P: PFAS Sums (QC Lot: 4320960)									
EM2207664-005	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	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	<0.05	<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: 4315474)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	97.2	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	58.1	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	95.8	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	90.4	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.7	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	89.6	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	91.5	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	88.9	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	83.3	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	72.2	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4314376)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4317687)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101
				----	7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315475)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	95.3	70.0	130
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	79.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319100)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	77.3	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	92.5	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316040)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	102	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4313449)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	89.8	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	89.9	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	0.5	mg/kg	<0.5	4.2 mg/kg	88.6	65.2	112
	106-42-3							
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	90.8	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: 4313449) - continued									
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	89.2	68.4	110	
EP074H: Naphthalene (QCLot: 4313449)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	87.3	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4313449)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	57.2	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	84.0	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	90.6	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	91.0	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	88.8	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	90.4	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	87.8	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	83.0	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	95.2	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	91.0	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	93.7	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	86.0	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	84.4	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	94.6	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	93.6	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	91.3	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	89.1	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	90.6	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	102	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316042)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	82.6	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	84.2	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	84.4	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	92.5	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	83.6	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	82.6	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	88.1	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	92.3	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	84.0	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316042)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	89.8	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	84.2	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	82.5	74.3	129	



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	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316042) - continued									
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	80.8	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	85.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	72.6	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	87.5	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.0	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	83.0	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	77.8	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316042)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	86.0	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	89.2	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	90.4	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	90.9	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	84.8	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	83.9	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	87.3	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.6	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	89.9	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	93.4	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	102	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	98.3	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	87.1	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	87.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	88.9	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4316042)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	85.2	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	84.0	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	93.1	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	86.4	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	87.4	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	87.7	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	91.7	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	84.8	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	89.1	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	89.4	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	85.8	69.4	134	
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	89.4	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	89.0	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	77.2	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: 4316042) - continued									
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	94.2	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	82.9	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	87.2	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	87.8	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	91.3	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4313449)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	88.7	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316041)									
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	110	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	102	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: 4313449)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	88.6	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316041)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	105	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	112	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	119	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	111	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	94.1	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	89.0	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	70.1	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	96.7	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	88.6	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	85.7	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	79.2	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.0	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.0	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.7	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.8	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: 4315022) - continued									
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.8	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.6	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.1	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.0	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.4	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	98.6	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	94.0	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	106	65.0	137	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	102	70.0	130	
EP231P: PFAS Sums (QCLot: 4315022)									
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: 4316313)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	91.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	87.7	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	87.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.2	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	93.4	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4316351)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	86.8	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	108	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: 4316351) - continued									
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	98.4	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	98.8	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4320960)									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	84.8	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	90.3	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	79.7	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	92.5	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	84.5	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	86.1	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316313)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	83.3	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	90.9	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	90.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.3	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	90.6	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	98.6	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	95.5	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.5	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.4	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	89.6	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316351)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.6	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	86.9	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	89.4	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	86.5	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.3	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	78.0	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	91.0	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.1	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	124	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4320960)									
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	78.8	73.0	129	
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	90.4	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: 4320960) - continued									
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	89.8	72.0	129	
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	92.0	72.0	130	
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	86.5	71.0	133	
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	99.2	69.0	130	
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	81.4	71.0	129	
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	93.5	69.0	133	
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	89.3	72.0	134	
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	82.3	65.0	144	
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	92.4	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316313)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.7	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	105	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.6	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	93.4	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.5	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316351)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.9	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	115	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	112	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.8	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	99.9	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	102	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4320960)									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	87.6	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	88.3	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	83.8	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: 4320960) - continued								
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	74.3	70.0	130
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	85.3	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	99.3	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	93.5	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316313)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	98.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	93.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	105	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	83.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316351)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	92.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	79.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4320960)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	92.7	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	90.3	64.0	140
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.48 µg/L	98.9	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	89.9	70.0	130
EP231P: PFAS Sums (QCLot: 4316313)								
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: 4316351)								
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: 4320960)								
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: 4315474)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	95.4	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	88.3	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	94.4	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	96.4	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	89.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	83.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	83.4	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315475)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	106	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)							
EM2207664-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	87.3	58.0	114
EM2207664-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	101	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319100)							
EM2207664-009	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	79.6	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)							
EM2207664-002	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	76.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316040)							
EM2207719-005	SX_IB_20220429_12_08_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	100	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4313449)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	67.3	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	75.3	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4313449)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	41.3	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	63.1	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	75.4	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316042)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	87.1	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	95.4	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	77.7	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316042)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_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: 4316042) - continued							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	78.8	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316042)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	83.5	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	88.5	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4313449)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	74.6	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316041)							
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	110	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	108	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	99.0	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	105	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4313449)							
EM2207719-002	SX_IB_20220429_08_12_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	75.2	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316041)							
EM2207719-006	SX_OB_20220429_16_14_SS_Triplicate_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	104	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	110	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	115	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	109	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	87.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	75.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	91.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	101	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	95.5	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	84.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	76.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	91.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	88.4	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.7	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	88.3	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	74.0	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	84.1	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	85.7	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	73.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	89.2	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: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	93.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	85.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	74.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	78.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	85.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.8	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	85.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	98.1	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	97.6	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	76.4	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: 4316313)							
EM2207664-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	94.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	83.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	89.9	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	88.3	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	110	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	118	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4316351)							
EM2207664-015	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	94.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	111	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	105	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	120	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	98.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	92.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4320960)							
EM2207664-006	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	91.3	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	87.6	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	78.5	68.0	131



Sub-Matrix: WATER

				Matrix Spike (MS) Report					
				Spike	SpikeRecovery(%)	Acceptable Limits (%)			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4320960) - continued									
EM2207664-006	Anonymous	EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	94.0	69.0	134		
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	89.6	65.0	140		
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	86.4	53.0	142		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316313)									
EM2207664-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	83.3	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	97.5	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	102	72.0	130		
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	94.1	71.0	133		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	93.0	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	101	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	96.6	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	94.9	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	96.0	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	94.9	71.0	132		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4316351)									
EM2207664-015	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	84.4	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	88.2	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	98.8	72.0	130		
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	82.3	71.0	133		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	98.0	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.0	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	74.1	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	88.4	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	67.5	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	85.6	71.0	132		
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4320960)							
		EM2207664-006	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	81.7	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.5 µg/L	91.9	72.0	129		
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4			0.5 µg/L	92.0	72.0	129		
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9			0.5 µg/L	94.7	72.0	130		
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1			0.5 µg/L	90.7	71.0	133		
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1			0.5 µg/L	105	69.0	130		
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2			0.5 µg/L	85.0	71.0	129		
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8			0.5 µg/L	93.1	69.0	133		
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1			0.5 µg/L	95.7	72.0	134		
EP231X-INJ: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8			0.5 µg/L	86.6	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: 4320960) - continued							
EM2207664-006	Anonymous	EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	94.1	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316313)							
EM2207664-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	109	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	94.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	99.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4316351)							
EM2207664-015	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	96.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	70.3	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	76.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	89.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	84.9	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	86.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4320960)							
EM2207664-006	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	92.1	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	93.0	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	82.5	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	76.9	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	85.5	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	100	65.0	136



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: 4320960) - continued							
EM2207664-006	Anonymous	EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	94.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316313)							
EM2207664-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	94.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	71.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4316351)							
EM2207664-015	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	98.8	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	107	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 51.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4320960)							
EM2207664-006	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	101	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	101	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	87.1	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2207719	Page	: 1 of 13
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 30-Apr-2022
Site	: 20220430052429-ALS-12	Issue Date	: 06-May-2022
Sampler	: Martha Agon / Toby Gray	No. of samples received	: 18
Order number	: ----	No. of samples analysed	: 18

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							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2207664--015	Anonymous	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	51.7 %	70.0-130%	Recovery less than lower data quality objective

Analysis Holding Time Compliance

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

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

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

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

Matrix: SOIL

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001)	29-Apr-2022	04-May-2022	06-May-2022	✔	04-May-2022	04-May-2022	✔	
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,								SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS
Soil Glass Jar - Unpreserved (EA001)								SX_OB_20220430_04_05_SS_Primary_ALS
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)	29-Apr-2022	----	----	----	03-May-2022	13-May-2022	✔	
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,								SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS
Soil Glass Jar - Unpreserved (EA055)								SX_OB_20220430_04_05_SS_Primary_ALS
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)	29-Apr-2022	03-May-2022	26-Oct-2022	✔	04-May-2022	26-Oct-2022	✔	
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,								SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS
Soil Glass Jar - Unpreserved (EG005T)								SX_OB_20220430_04_05_SS_Primary_ALS



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_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	27-May-2022	✓	04-May-2022	27-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	28-May-2022	✓	04-May-2022	28-May-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	27-May-2022	✓	04-May-2022	10-May-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	28-May-2022	✓	04-May-2022	10-May-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	05-May-2022	18-May-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	05-May-2022	18-May-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	27-May-2022	✓	06-May-2022	27-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	28-May-2022	✓	06-May-2022	28-May-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_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	26-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	27-Oct-2022	✓	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	26-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	27-Oct-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	
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	07-May-2022	✓	02-May-2022	07-May-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	07-May-2022	✓	02-May-2022	07-May-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	07-May-2022	✓	02-May-2022	07-May-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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	
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	07-May-2022	✓	02-May-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	02-May-2022	06-May-2022	✓	02-May-2022	06-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	04-May-2022	13-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	02-May-2022	07-May-2022	✓	02-May-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS	29-Apr-2022	03-May-2022	26-Oct-2022	✓	04-May-2022	12-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220430_00_05_SS_Primary_ALS,	SX_OB_20220430_04_05_SS_Primary_ALS	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	12-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)									
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220429_08_20_SR_Rinsate_ALS,	SX_IB_20220429_08_23_SB_Blank_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-2022	✓	
EP231B: Perfluoroalkyl Carboxylic Acids									
HDPE (no PTFE) (EP231X)									
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220429_08_20_SR_Rinsate_ALS,	SX_IB_20220429_08_23_SB_Blank_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-2022	✓	
EP231C: Perfluoroalkyl Sulfonamides									
HDPE (no PTFE) (EP231X)									
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220429_08_20_SR_Rinsate_ALS,	SX_IB_20220429_08_23_SB_Blank_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-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		
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE (no PTFE) (EP231X)									
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220429_08_20_SR_Rinsate_ALS,	SX_IB_20220429_08_23_SB_Blank_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-2022	✓	
EP231P: PFAS Sums									
HDPE (no PTFE) (EP231X)									
SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Primary_ALS, SX_IB_20220429_12_08_SS_Primary_ALS, SX_OB_20220429_16_18_SS_Primary_ALS, SX_OB_20220430_00_05_SS_Primary_ALS,	SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS, SX_IB_20220429_08_12_SS_Duplicate_ALS, SX_OB_20220429_16_14_SS_Triplicate_ALS, SX_OB_20220429_20_00_SS_Primary_ALS, SX_OB_20220430_04_05_SS_Primary_ALS	02-May-2022	03-May-2022	29-Oct-2022	✓	03-May-2022	29-Oct-2022	✓	
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220429_08_20_SR_Rinsate_ALS,	SX_IB_20220429_08_23_SB_Blank_ALS	29-Apr-2022	05-May-2022	26-Oct-2022	✓	05-May-2022	26-Oct-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	
Analytical Methods							
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	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	19	10.53	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	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	19	5.26	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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	14	7.14	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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	19	5.26	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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	19	5.26	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	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	9	11.11	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.

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Work Order : EM2207719
Client : AGON ENVIRONMENTAL PTY LTD
Project : JC0927



<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.

From: David Lawson <David.Lawson@agonenviro.com.au>
Sent: Monday, 9 May 2022 2:07 PM
To: Josh Alexander <josh.alexander@ALSGlobal.com>
Cc: Bronwyn Sheen <bronwyn.sheen@alsglobal.com>; ALS WGTP <ALS.WGTP@ALSGlobal.com>;
Craig Trimbur <Craig.Trimbur@eprisk.com.au>
Subject: [EXTERNAL] - Reissue EM2207807 with spelling correction

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hi Josh,

Can you please reissue report EM2207807 with the following correction?

EM2207807004	SX_IB_20220430_11_51_SS_Primary_ALS
EM2207807031	SX_IB_20220430_11_51_SS_Primary_ALS

This sample was incorrectly labelled as outbound on the COC

Regards,

agon

ENVIRONMENTAL



David Lawson
Environmental Scientist

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CERTIFICATE OF ANALYSIS

Work Order	: EM2207807	Page	: 1 of 65
Amendment	: 1	Laboratory	: Environmental Division Melbourne
Client	: AGON ENVIRONMENTAL PTY LTD	Contact	: Josh Alexander
Contact	: DAVID LAWSON	Address	: 4 Westall Rd Springvale VIC Australia 3171
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Telephone	: +61-3-8549 9600
Telephone	: ----	Date Samples Received	: 02-May-2022 11:55
Project	: JC0927	Date Analysis Commenced	: 02-May-2022
Order number	: ----	Issue Date	: 09-May-2022 14:20
C-O-C number	: 20220502042154-ALS-21		
Sampler	: WOH + TB + DL + LR		
Site	: 20220502042154-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 50		
No. of samples analysed	: 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 Organics, Springvale, VIC



General Comments

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

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

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

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

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

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

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

- EP231X: Poor matrix spike recovery for sample EM2207807-029 due to sample matrix interference.
- EG048G: EM2207807 #6 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.
- Amendment (9/05/2022): This report has been amended as a result of a request to change sample identification numbers (IDs) received from David Lawson on 9/05/2022 for EM2207807 sample 004 and 031. All analysis results are as per the previous report.
- 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

		Sampling date / time			SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005
				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	%	97.8	93.2	104	95.7	92.0
13C8-PFOA	----	0.02	%	105	113	84.1	106	95.8



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	87.9	95.2	87.3	91.3	86.5
13C8-PFOA	----	0.02	%	96.0	87.0	99.6	85.6	98.5



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017
				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	%	74.4	93.0	92.7	77.9	90.3
13C8-PFOA	----	0.02	%	86.0	88.1	92.5	99.6	94.8



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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	%	104	85.8	98.1	105	85.4
13C8-PFOA	----	0.02	%	102	98.8	91.1	90.5	96.7



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	----	----
		Sampling date / time		01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	----	----
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<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	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<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	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)				Sample ID	SX_IB_20220501_19_ 58_SS_Primary_ALS	SX_IB_20220501_23_ 56_SS_Primary_ALS	SX_IB_20220502_04_ 06_SS_Primary_ALS	----	----
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	----	----	
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	-----	-----	
				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	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<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	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<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	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L	<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	----	----	
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	93.4	89.7	95.4	----	----	
13C8-PFOA	----	0.02	%	87.0	116	116	----	----	



Analytical Results

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

Sample ID

				SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-028	EM2207807-029	EM2207807-030	EM2207807-031	EM2207807-032
				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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-028	EM2207807-029	EM2207807-030	EM2207807-031	EM2207807-032
				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	%	101	108	96.0	101	99.6
13C8-PFOA	----	0.02	%	95.1	91.3	91.9	89.3	89.4



Analytical Results

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

Sample ID

				SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-033	EM2207807-034	EM2207807-035	EM2207807-036	EM2207807-037
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

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

Sample ID

				SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-033	EM2207807-034	EM2207807-035	EM2207807-036	EM2207807-037
				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	%	103	95.9	103	98.5	105
13C8-PFOA	----	0.02	%	92.0	91.9	93.6	94.8	92.0



Analytical Results

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

Sample ID

				SX_OB_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-038	EM2207807-039	EM2207807-040	EM2207807-041	EM2207807-042
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-038	EM2207807-039	EM2207807-040	EM2207807-041	EM2207807-042
				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	%	98.9	103	105	114	107
13C8-PFOA	----	0.02	%	96.6	93.8	93.8	95.7	97.2



Analytical Results

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

Sample ID

				SX_OB_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-043	EM2207807-044	EM2207807-045	EM2207807-046	EM2207807-047
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

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

Sample ID

				SX_OB_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-043	EM2207807-044	EM2207807-045	EM2207807-046	EM2207807-047
				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	%	99.0	105	110	97.9	110
13C8-PFOA	----	0.02	%	93.4	95.4	91.8	95.4	93.1



Analytical Results

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

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	----	----
		Sampling date / time		01-May-2022 19:58	01-May-2022 23:56	02-May-2022 04:06	----	----
Compound	CAS Number	LOR	Unit	EM2207807-048	EM2207807-049	EM2207807-050	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<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	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<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	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	----	----



Analytical Results

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

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	----	----
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 04:06	----	----
Compound	CAS Number	LOR	Unit	EM2207807-048	EM2207807-049	EM2207807-050	-----	-----
				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	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<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	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<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	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<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	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<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	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	110	108	107	----	----
13C8-PFOA	----	0.02	%	94.3	96.2	92.6	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	8.9	8.9	7.5	8.7	7.6
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	29.4	30.6	29.3	29.9	25.8
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	20	22	23	20	12
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	80	82	113	72	99
Copper	7440-50-8	5	mg/kg	65	59	66	67	57
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	183	167	187	187	154
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	145	118	115	147	88
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	220	240	170	240	170
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.6	9.7	9.0	9.1	9.1
After HCl pH	----	0.1	pH Unit	1.6	1.5	1.5	1.5	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	5.2	5.2	5.2	5.3	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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005
				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
1,1,2,2-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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005
				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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005
				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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55	
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005	
				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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55	
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005	
				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_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS	SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS
Sampling date / time				30-Apr-2022 07:47	30-Apr-2022 07:51	30-Apr-2022 08:01	30-Apr-2022 11:51	30-Apr-2022 11:55	
Compound	CAS Number	LOR	Unit	EM2207807-001	EM2207807-002	EM2207807-003	EM2207807-004	EM2207807-005	
				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	%	105	108	97.6	111	104	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	79.6	85.5	98.8	92.1	92.2	
Toluene-D8	2037-26-5	0.1	%	78.6	82.3	101	94.8	94.9	
4-Bromofluorobenzene	460-00-4	0.1	%	89.1	90.5	108	102	102	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	87.9	88.9	84.2	93.0	90.7	
2-Chlorophenol-D4	93951-73-6	0.025	%	82.2	83.1	78.1	86.2	83.7	
2,4,6-Tribromophenol	118-79-6	0.025	%	75.6	76.3	70.1	78.2	75.4	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	87.6	87.7	84.6	92.4	91.3	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	78.8	77.3	76.8	83.5	82.8	
2-Fluorobiphenyl	321-60-8	0.025	%	90.0	88.4	85.9	95.6	92.4	
Anthracene-d10	1719-06-8	0.025	%	82.9	84.9	78.3	87.5	85.3	
4-Terphenyl-d14	1718-51-0	0.025	%	86.2	89.3	83.2	91.9	89.9	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	118	118	124	120	110	
13C8-PFOA	----	0.0002	%	95.0	95.2	104	96.8	94.8	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	8.8	7.8	7.8	7.7	7.8
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	30.5	26.5	29.4	30.0	32.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	22	12	15	18	30
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	1	<1
Chromium	7440-47-3	5	mg/kg	85	115	127	135	114
Copper	7440-50-8	5	mg/kg	54	67	71	74	55
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	155	173	189	238	168
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	111	101	124	130	97
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	320	170	160	180	190
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	10.0	9.3	9.2	9.0	9.1
After HCl pH	----	0.1	pH Unit	1.5	1.4	4.5	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	5.3	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_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				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_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				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_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				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_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<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_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				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_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS	SX_OB_20220430_16_02_SS_Primary_ALS	SX_OB_20220430_20_08_SS_Primary_ALS	SX_OB_20220501_00_12_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:52	30-Apr-2022 15:58	30-Apr-2022 16:02	30-Apr-2022 20:08	01-May-2022 00:12
Compound	CAS Number	LOR	Unit	EM2207807-006	EM2207807-007	EM2207807-008	EM2207807-009	EM2207807-012
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<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	%	104	118	103	108	112
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	92.6	82.7	92.4	89.4	96.0
Toluene-D8	2037-26-5	0.1	%	93.2	85.5	94.0	90.5	96.8
4-Bromofluorobenzene	460-00-4	0.1	%	102	90.4	102	99.5	106
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	90.6	94.9	87.1	94.0	95.5
2-Chlorophenol-D4	93951-73-6	0.025	%	82.6	87.6	79.6	86.0	87.3
2,4,6-Tribromophenol	118-79-6	0.025	%	74.5	78.7	70.8	77.3	83.3
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	89.8	94.2	86.0	93.6	95.6
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	81.6	85.3	78.8	85.5	86.4
2-Fluorobiphenyl	321-60-8	0.025	%	92.3	97.7	89.2	96.5	99.3
Anthracene-d10	1719-06-8	0.025	%	84.8	89.1	82.2	88.7	92.5
4-Terphenyl-d14	1718-51-0	0.025	%	88.6	94.6	87.4	93.6	99.7
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	123	111	102	110	110
13C8-PFOA	----	0.0002	%	94.5	97.6	97.3	98.1	91.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21	
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	7.6	8.6	8.6	8.8	8.8	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	30.3	31.9	32.8	33.3	32.3	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	9	27	23	20	20	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	5	mg/kg	106	90	85	78	76	
Copper	7440-50-8	5	mg/kg	48	54	60	58	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	131	163	153	167	142	
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	84	119	122	107	103	
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	180	280	200	190	240	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	9.3	9.9	9.6	9.8	9.8	
After HCl pH	----	0.1	pH Unit	1.5	1.4	1.6	1.5	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	5.2	5.2	5.2	5.2	5.3	
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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21	
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017	
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21	
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017	
				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_20220501_04_13_SS_Primary_ALS	SX_IB_20220501_08_17_SS_Primary_ALS	SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS
Sampling date / time				01-May-2022 04:13	01-May-2022 08:17	01-May-2022 08:20	01-May-2022 12:15	01-May-2022 12:21	
Compound	CAS Number	LOR	Unit	EM2207807-013	EM2207807-014	EM2207807-015	EM2207807-016	EM2207807-017	
				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	%	120	110	121	107	104	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	64.5	87.6	93.1	83.7	89.7	
Toluene-D8	2037-26-5	0.1	%	62.8	89.0	91.0	82.6	88.6	
4-Bromofluorobenzene	460-00-4	0.1	%	79.7	96.6	94.2	86.4	89.5	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	96.4	101	112	95.0	90.5	
2-Chlorophenol-D4	93951-73-6	0.025	%	88.8	94.7	105	88.4	84.6	
2,4,6-Tribromophenol	118-79-6	0.025	%	80.6	88.4	98.4	83.6	78.7	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	97.4	103	114	96.0	91.8	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	87.5	91.2	101	86.3	82.0	
2-Fluorobiphenyl	321-60-8	0.025	%	99.0	101	114	96.5	92.9	
Anthracene-d10	1719-06-8	0.025	%	90.7	96.1	108	90.7	86.2	
4-Terphenyl-d14	1718-51-0	0.025	%	95.5	98.9	108	92.1	89.0	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	109	121	113	129	121	
13C8-PFOA	----	0.0002	%	92.0	90.2	91.8	93.9	94.7	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	7.6	8.9	8.9	7.5	8.7
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	31.1	30.0	34.0	28.4	30.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	12	18	24	14	21
Cadmium	7440-43-9	1	mg/kg	1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	124	73	79	116	78
Copper	7440-50-8	5	mg/kg	67	45	49	66	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	183	123	132	172	140
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	113	80	97	101	97
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	190	220	<100	170	210
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.1	10.0	10.0	9.2	9.9
After HCl pH	----	0.1	pH Unit	1.5	1.5	1.5	1.5	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	5.2	5.3	5.2	5.2
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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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 (PFTTrDA)	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_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS	SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS
Sampling date / time				01-May-2022 12:24	01-May-2022 16:12	01-May-2022 16:18	01-May-2022 16:24	01-May-2022 19:49
Compound	CAS Number	LOR	Unit	EM2207807-018	EM2207807-019	EM2207807-020	EM2207807-021	EM2207807-022
				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	%	96.6	104	97.9	96.7	96.8
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	96.8	87.0	93.4	93.4	93.7
Toluene-D8	2037-26-5	0.1	%	98.5	84.1	94.8	93.4	96.5
4-Bromofluorobenzene	460-00-4	0.1	%	99.9	87.6	98.5	95.3	95.6
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	89.2	94.7	87.3	86.1	91.7
2-Chlorophenol-D4	93951-73-6	0.025	%	83.6	87.5	80.9	79.5	84.3
2,4,6-Tribromophenol	118-79-6	0.025	%	77.3	80.3	73.6	73.1	77.8
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	90.8	95.5	87.8	86.5	91.6
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	80.2	86.3	77.2	77.3	83.2
2-Fluorobiphenyl	321-60-8	0.025	%	91.3	96.5	87.6	87.2	93.0
Anthracene-d10	1719-06-8	0.025	%	85.6	90.2	82.4	81.7	86.9
4-Terphenyl-d14	1718-51-0	0.025	%	89.1	93.5	85.0	85.0	89.6
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	103	120	128	106	119
13C8-PFOA	----	0.0002	%	97.3	89.8	92.6	96.7	96.4



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	9.0	9.0	8.9	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	31.8	32.4	31.7	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	22	26	22	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----	
Chromium	7440-47-3	5	mg/kg	81	80	76	----	----	
Copper	7440-50-8	5	mg/kg	48	58	49	----	----	
Lead	7439-92-1	5	mg/kg	<5	<5	<5	----	----	
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	----	----	
Nickel	7440-02-0	5	mg/kg	124	143	118	----	----	
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	----	----	
Silver	7440-22-4	2	mg/kg	<2	<2	<2	----	----	
Tin	7440-31-5	10	mg/kg	<10	<10	<10	----	----	
Zinc	7440-66-6	5	mg/kg	82	104	92	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<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	----	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	----	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg	210	<100	180	----	----	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	10.0	10.1	9.9	----	----	
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.5	----	----	
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	----	----	
Final pH	----	0.1	pH Unit	5.2	5.2	5.2	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	----	----	----	10.3	10.3	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029
				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	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<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	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<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	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<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	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----	
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	<0.10	----	----	
^ 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	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
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	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<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	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<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	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<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	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS	SX_IB_20220502_04_06_SS_Primary_ALS	SX_IB_20220430_07_47_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS
Sampling date / time				01-May-2022 19:58	01-May-2022 23:56	02-May-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	
Compound	CAS Number	LOR	Unit	EM2207807-023	EM2207807-025	EM2207807-027	EM2207807-028	EM2207807-029	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<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	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg	<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	----	----	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	----	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	112	107	101	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	85.2	81.6	80.2	----	----	
Toluene-D8	2037-26-5	0.1	%	83.9	83.5	80.3	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%	86.9	86.4	85.9	----	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	103	96.8	95.1	----	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	95.5	89.4	88.2	----	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	88.6	82.0	80.8	----	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	104	97.3	96.0	----	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	92.6	87.2	84.6	----	----	
2-Fluorobiphenyl	321-60-8	0.025	%	104	98.4	96.0	----	----	
Anthracene-d10	1719-06-8	0.025	%	98.7	91.8	89.8	----	----	
4-Terphenyl-d14	1718-51-0	0.025	%	100	93.8	92.0	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	111	100	101	----	----	
13C8-PFOA	----	0.0002	%	94.6	92.0	90.2	----	----	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220430_08_01_SS_Primary_ALS	SX_IB_20220430_11_51_SS_Primary_ALS	SX_OB_20220430_11_55_SS_Primary_ALS	SX_IB_20220430_15_52_SS_Primary_ALS	SX_OB_20220430_15_58_SS_Triplicate_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00	30-Apr-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-030	EM2207807-031	EM2207807-032	EM2207807-033	EM2207807-034
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.3	10.2	9.4	10.2	9.6



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220430_16 _02_SS_Primary_ALS	SX_OB_20220430_20 _08_SS_Primary_ALS	SX_OB_20220501_00 _12_SS_Primary_ALS	SX_OB_20220501_04 _13_SS_Primary_ALS	SX_IB_20220501_08_ 17_SS_Primary_ALS
Sampling date / time				30-Apr-2022 15:00	30-Apr-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-035	EM2207807-036	EM2207807-037	EM2207807-038	EM2207807-039
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.3	9.3	9.4	10.1



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220501_08_20_SS_Duplicate_ALS	SX_IB_20220501_12_15_SS_Primary_ALS	SX_IB_20220501_12_21_SS_Primary_ALS	SX_OB_20220501_12_24_SS_Primary_ALS	SX_IB_20220501_16_12_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00	01-May-2022 15:00
Compound	CAS Number	LOR	Unit	EM2207807-040	EM2207807-041	EM2207807-042	EM2207807-043	EM2207807-044
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	10.2	10.2	10.3	9.4	10.3



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220501_16_18_SS_Primary_ALS	SX_OB_20220501_16_24_SS_Triplicate_ALS	SX_IB_20220501_19_49_SS_Primary_ALS	SX_IB_20220501_19_58_SS_Primary_ALS	SX_IB_20220501_23_56_SS_Primary_ALS
Sampling date / time				01-May-2022 15:00	01-May-2022 16:24	01-May-2022 19:49	01-May-2022 19:58	01-May-2022 23:56
Compound	CAS Number	LOR	Unit	EM2207807-045	EM2207807-046	EM2207807-047	EM2207807-048	EM2207807-049
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	10.3	9.5	10.2	10.3	10.3



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_IB_20220502_04_06_SS_Primary_ALS	----	----	----	----
			Sampling date / time	02-May-2022 04:06	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2207807-050	-----	-----	-----	-----
				Result	---	---	---	---
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	10.2	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220430_20 _14_SR_Rinsate_ALS	SX_OB_20220430_20 _15_SB_Blank_ALS	----	----	----
Sampling date / time			30-Apr-2022 20:14		30-Apr-2022 20:15		----	----	----
Compound	CAS Number	LOR	Unit	EM2207807-010	EM2207807-011	-----	-----	-----	
				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_20220430_20 _14_SR_Rinsate_ALS	SX_OB_20220430_20 _15_SB_Blank_ALS	----	----	----
Sampling date / time				30-Apr-2022 20:14	30-Apr-2022 20:15	----	----	----	
Compound	CAS Number	LOR	Unit	EM2207807-010	EM2207807-011	-----	-----	-----	
				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	%	90.6	92.3	----	----	----	
13C8-PFOA	----	0.02	%	95.3	97.2	----	----	----	



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	: EM2207807	Page	: 1 of 56
Amendment	: 1		
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	: 02-May-2022
Order number	: ----	Date Analysis Commenced	: 02-May-2022
C-O-C number	: 20220502042154-ALS-21	Issue Date	: 09-May-2022
Sampler	: WOH + TB + DL + LR		
Site	: 20220502042154-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 50		
No. of samples analysed	: 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 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: 4315474)									
EM2207719-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	86	90	4.4	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	173	167	3.8	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	29	24	19.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	73	64	12.1	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	121	116	4.3	0% - 20%
EM2207807-002	SX_IB_20220430_07_51_S S_Duplicate_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	82	80	2.3	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	167	154	7.8	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	22	20	9.4	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	59	54	8.2	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	118	114	3.0	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4315477)									



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: 4315477) - continued									
EM2207807-015	SX_IB_20220501_08_20_S S_Duplicate_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	85	88	3.7	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	160	4.6	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	23	24	4.3	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	60	62	3.2	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	122	126	3.1	0% - 20%		
EM2207807-025	SX_IB_20220501_23_56_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	80	88	8.5	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	143	160	11.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	26	28	8.1	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	58	73	23.7	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	104	116	11.1	0% - 20%		
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4317687)									
EM2207664-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.4	7.5	0.0	0% - 20%
EM2207719-006	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.6	0.0	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4317688)									
EM2207807-007	SX_OB_20220430_15_58_ SS_Triplicate_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.7	1.7	0% - 20%
EM2207807-018	SX_OB_20220501_12_24_ SS_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: 4315804)									
EM2207664-001	Anonymous	EA055: Moisture Content	----	0.1	%	34.1	31.0	9.5	0% - 20%
EM2207719-007	Anonymous	EA055: Moisture Content	----	0.1	%	29.4	25.5	14.2	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4315805)									
EM2207807-007	SX_OB_20220430_15_58_ SS_Triplicate_ALS	EA055: Moisture Content	----	0.1	%	26.5	26.0	1.9	0% - 20%
EM2207807-019	SX_IB_20220501_16_12_S S_Primary_ALS	EA055: Moisture Content	----	0.1	%	30.0	31.5	4.7	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 (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4315475)									
EM2207719-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2207807-002	SX_IB_20220430_07_51_S S_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4315476)									
EM2207807-015	SX_IB_20220501_08_20_S S_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2207807-025	SX_IB_20220501_23_56_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: 4316693)									
EM2207664-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2207719-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4316694)									
EM2207807-007	SX_OB_20220430_15_58_ SS_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2207807-018	SX_OB_20220501_12_24_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4319101)									
EM2207794-021	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2207807-004	SX_IB_20220430_11_51_S S_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4319102)									
EM2207807-017	SX_IB_20220501_12_21_S S_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2207862-007	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	1	1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4316697)									
EM2207664-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	210	180	12.6	No Limit
EM2207719-006	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	170	150	13.8	No Limit
EK040T: Fluoride Total (QC Lot: 4316698)									
EM2207807-007	SX_OB_20220430_15_58_ SS_Triplicate_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	170	140	14.4	No Limit
EM2207807-018	SX_OB_20220501_12_24_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	190	200	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4316040)									
EM2207719-001	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2207807-003	SX_OB_20220430_08_01_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4316043)									
EM2207664-001	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4316043) - continued									
EM2207807-018	SX_OB_20220501_12_24_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: 4314584)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-013	SX_OB_20220501_04_13_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4314585)									
EM2207807-015	SX_IB_20220501_08_20_S_S_Duplicate_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
EM2207807-027	SX_IB_20220502_04_06_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: 4314584)									
EM2207807-001	SX_IB_20220430_07_47_S_S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP074H: Naphthalene (QC Lot: 4314584) - continued									
EM2207807-013	SX_OB_20220501_04_13_SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074H: Naphthalene (QC Lot: 4314585)									
EM2207807-015	SX_IB_20220501_08_20_S_S_Duplicate_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EM2207807-027	SX_IB_20220502_04_06_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: 4314584)									
EM2207807-001	SX_IB_20220430_07_47_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		
EM2207807-013	SX_OB_20220501_04_13_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



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: 4314584) - continued									
EM2207807-013	SX_OB_20220501_04_13_SS_Primary_ALS	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
EP074I: Volatile Halogenated Compounds (QC Lot: 4314585)									
EM2207807-015	SX_IB_20220501_08_20_S_S_Duplicate_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		
EM2207807-027	SX_IB_20220502_04_06_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		



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: 4314585) - continued									
EM2207807-027	SX_IB_20220502_04_06_S S_Primary_ALS	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: 4316042)									
EM2207719-001	Anonymous	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
EM2207807-003	SX_OB_20220430_08_01_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-9 0-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4316045)									
EM2207664-001	Anonymous	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



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: 4316045) - continued									
EM2207664-001	Anonymous	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	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		0-2							
EM2207807-018	SX_OB_20220501_12_24_SS_Primary_ALS	EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
		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	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
0-2									
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: 4316042)									
EM2207719-001	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EM2207807-003	SX_OB_20220430_08_01_SS_Primary_ALS	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4316045)									
EM2207664-001	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit



Sub-Matrix: SOIL

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4316045) - continued									
EM2207664-001	Anonymous	EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EM2207807-018	SX_OB_20220501_12_24_ SS_Primary_ALS	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<20	<20	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<20	<20	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4316042)									
EM2207719-001	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EM2207807-003	SX_OB_20220430_08_01_ 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



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: 4316042) - continued									
EM2207807-003	SX_OB_20220430_08_01_ SS_Primary_ALS	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: Dibenzo(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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4316045)									
EM2207664-001	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenzo(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
EM2207807-018	SX_OB_20220501_12_24_ 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



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: 4316045) - continued									
EM2207807-018	SX_OB_20220501_12_24_ SS_Primary_ALS	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: 4316042)									
EM2207719-001	Anonymous	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
EM2207807-003	SX_OB_20220430_08_01_ 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		



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: 4316042) - continued									
EM2207807-003	SX_OB_20220430_08_01_ SS_Primary_ALS	EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP075I: Organochlorine Pesticides (QC Lot: 4316045)									
EM2207664-001	Anonymous	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		
EM2207807-018	SX_OB_20220501_12_24_ 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



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: 4316045) - continued									
EM2207807-018	SX_OB_20220501_12_24_ SS_Primary_ALS	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: 4314584)									
EM2207807-001	SX_IB_20220430_07_47_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2207807-013	SX_OB_20220501_04_13_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4314585)									
EM2207807-015	SX_IB_20220501_08_20_S S_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2207807-027	SX_IB_20220502_04_06_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: 4316041)									
EM2207719-001	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2207807-003	SX_OB_20220430_08_01_ 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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4316044)									
EM2207664-001	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit



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: 4316044) - continued									
EM2207807-018	SX_OB_20220501_12_24_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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4314584)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-013	SX_OB_20220501_04_13_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: 4314585)									
EM2207807-015	SX_IB_20220501_08_20_S_S_Duplicate_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
EM2207807-027	SX_IB_20220502_04_06_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: 4316041)									
EM2207719-001	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2207807-003	SX_OB_20220430_08_01_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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4316044)									
EM2207664-001	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EM2207807-018	SX_OB_20220501_12_24_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: 4315018)									



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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4315018) - continued									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-013	SX_OB_20220501_04_13_ 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2207719-005	Anonymous	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: 4315018)									
EM2207807-001	SX_IB_20220430_07_47_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



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: 4315018) - continued									
EM2207807-013	SX_OB_20220501_04_13_S SS_Primary_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit		
EM2207719-005	Anonymous	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: 4315018)									
EM2207807-001	SX_IB_20220430_07_47_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



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: 4315018) - continued									
EM2207807-001	SX_IB_20220430_07_47_S S_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
EM2207807-013	SX_OB_20220501_04_13_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2207719-005	Anonymous	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: 4315022) - continued									
EM2207719-005	Anonymous	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: 4315018)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-013	SX_OB_20220501_04_13_ 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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2207719-005	Anonymous	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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4315022) - continued									
EM2207719-005	Anonymous	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: 4315018)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-013	SX_OB_20220501_04_13_ 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
EP231P: PFAS Sums (QC Lot: 4315022)									
EM2207535-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
EM2207719-005	Anonymous	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: 4317373)									
EM2207712-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	3.41	3.14	8.4	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	6.52	6.03	7.8	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.37	0.37	0.0	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.40	0.38	3.1	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.30	0.28	4.6	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2207797-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.12	0.12	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.46	1.54	5.7	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4318654)



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: 4318654) - continued									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-020	SX_IB_20220501_16_18_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: 4318698)									
EM2207807-028	SX_IB_20220430_07_47_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
EM2207807-036	SX_OB_20220430_20_08_ SS_Primary_ALS	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4318981)									
EM2207616-012	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
EM2207807-048	SX_IB_20220501_19_58_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



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: 4318981) - continued									
EM2207807-048	SX_IB_20220501_19_58_S S_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: 4318982)									
EM2207616-011	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4317373)									
EM2207712-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.45	0.45	0.0	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.93	0.92	1.8	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	1.53	1.48	3.1	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.39	0.37	4.9	0% - 50%
		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	0.3	0.3	0.0	No Limit
		EM2207797-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.02	0.02
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.02	µg/L	0.15	0.15	0.0	No Limit
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.02	µg/L	0.12	0.11	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: 4318654)									
EM2207807-001	SX_IB_20220430_07_47_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



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: 4318654) - continued									
EM2207807-001	SX_IB_20220430_07_47_S S_Primary_ALS	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
EM2207807-020	SX_IB_20220501_16_18_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: 4318698)									
EM2207807-028	SX_IB_20220430_07_47_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
EM2207807-036	SX_OB_20220430_20_08_ SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: 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: 4318698) - continued									
EM2207807-036	SX_OB_20220430_20_08_ 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: 4318981)									
EM2207616-012	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2207807-048	SX_IB_20220501_19_58_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: 4318982)									
EM2207616-011	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit



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: 4318982) - continued									
EM2207616-011	Anonymous	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: 4317373)									
EM2207712-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	0.04	0.04	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
EM2207797-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		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: 4318654)									
EM2207807-001	SX_IB_20220430_07_47_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



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: 4318654) - continued									
EM2207807-001	SX_IB_20220430_07_47_S S_Primary_ALS	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
EM2207807-020	SX_IB_20220501_16_18_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4318698)									
EM2207807-028	SX_IB_20220430_07_47_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2207807-036	SX_OB_20220430_20_08_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit



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: 4318698) - continued									
EM2207807-036	SX_OB_20220430_20_08_ SS_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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4318981)									
EM2207616-012	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
EM2207807-048	SX_IB_20220501_19_58_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4318982)									
EM2207616-011	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



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: 4318982) - continued									
EM2207616-011	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4317373)									
EM2207712-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.73	0.73	0.0	0% - 50%
		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
EM2207797-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.14	0.15	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: 4318654)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-020	SX_IB_20220501_16_18_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



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: 4318654) - continued									
EM2207807-020	SX_IB_20220501_16_18_S S_Primary_ALS	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4318698)									
EM2207807-028	SX_IB_20220430_07_47_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
EM2207807-036	SX_OB_20220430_20_08_ SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4318981)									
EM2207616-012	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
EM2207807-048	SX_IB_20220501_19_58_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: 4318982)									
EM2207616-011	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit



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: 4318982) - continued									
EM2207616-011	Anonymous	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: 4317373)									
EM2207712-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	15.4	14.5	6.0	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	9.93	9.17	8.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	14.6	13.8	5.9	0% - 20%
EM2207797-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	2.05	2.11	2.9	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	1.58	1.66	4.9	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	2.05	2.11	2.9	0% - 20%
EP231P: PFAS Sums (QC Lot: 4318654)									
EM2207807-001	SX_IB_20220430_07_47_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
EM2207807-020	SX_IB_20220501_16_18_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
EP231P: PFAS Sums (QC Lot: 4318698)									
EM2207807-028	SX_IB_20220430_07_47_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
EM2207807-036	SX_OB_20220430_20_08_ SS_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4318981)									
EM2207616-012	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



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 (%)
EP231P: PFAS Sums (QC Lot: 4318981) - continued									
EM2207807-048	SX_IB_20220501_19_58_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
EP231P: PFAS Sums (QC Lot: 4318982)									
EM2207616-011	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit



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: 4315474)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	97.2	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	58.1	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	95.8	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	90.4	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.7	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	89.6	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	91.5	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	88.9	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	83.3	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	72.2	70.0	130	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4315477)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	97.0	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	61.6	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	95.5	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	90.2	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	91.2	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	87.5	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	91.2	70.0	130	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	87.8	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	82.9	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	71.8	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4316453)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4316454)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4317687)									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
				----	7 pH Unit	100	99.3	101	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4317688)									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
				----	7 pH Unit	100	99.3	101	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315475)									



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	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315475) - continued								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	95.3	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315476)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	90.6	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	79.4	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316694)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	80.7	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319101)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	71.6	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319102)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	87.1	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	92.5	75.2	110
EK040T: Fluoride Total (QCLot: 4316698)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<200	400 mg/kg	95.2	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316040)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	102	67.4	136
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316043)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	105	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4314584)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	99.6	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	98.0	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	96.5	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	93.0	65.2	112
	106-42-3							
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	94.1	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	93.1	68.4	110
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4314585)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	96.2	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	96.7	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	95.6	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	93.9	65.2	112
	106-42-3							
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	92.4	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	94.4	68.4	110
EP074H: Naphthalene (QCLot: 4314584)								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	88.7	72.3	114



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	
EP074H: Naphthalene (QCLot: 4314585)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	88.2	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4314584)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	94.0	47.0	138	
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	103	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	97.8	72.3	115	
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	101	60.5	122	
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	96.8	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	96.8	66.6	115	
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	99.2	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	98.0	58.4	127	
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	103	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	96.6	64.7	115	
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	101	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	94.6	60.0	119	
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	95.0	71.8	116	
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	94.4	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	85.0	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	97.0	70.3	113	
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	93.2	62.6	113	
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	95.2	70.8	110	
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	89.7	48.4	120	
EP074I: Volatile Halogenated Compounds (QCLot: 4314585)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	77.8	47.0	138	
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	88.7	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	90.2	72.3	115	
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	96.1	60.5	122	
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	94.2	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	96.6	66.6	115	
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	95.1	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	95.4	58.4	127	
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	96.4	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	97.9	64.7	115	
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	99.1	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	97.6	60.0	119	
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	100	71.8	116	
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	93.8	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	95.8	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	96.6	70.3	113	
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	94.4	62.6	113	



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	
EP074I: Volatile Halogenated Compounds (QCLot: 4314585) - continued									
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	98.0	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	94.4	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316042)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	82.6	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	84.2	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	84.4	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	92.5	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	83.6	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	82.6	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	88.1	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	92.3	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	84.0	54.4	135	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316045)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	83.0	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	84.9	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	85.6	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	91.7	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	83.9	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	85.2	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	88.0	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	82.0	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316042)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	89.8	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	84.2	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	82.5	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	80.8	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	85.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	72.6	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	87.5	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.0	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	83.0	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	77.8	34.5	137	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316045)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	88.2	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	83.5	73.4	129	



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 (Non-halogenated) (QCLot: 4316045) - continued									
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	82.2	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	82.6	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	84.6	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	70.8	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	82.5	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.5	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	82.8	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	74.8	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316042)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	86.0	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	89.2	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	90.4	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	90.9	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	84.8	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	83.9	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	87.3	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.6	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	89.9	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	93.4	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	102	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	98.3	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	87.1	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	87.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	88.9	71.3	134	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316045)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	86.7	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	87.0	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	88.4	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	88.6	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	85.4	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	84.6	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	88.0	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.8	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	84.2	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	85.9	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	90.9	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	88.9	65.1	130	



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	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316045) - continued									
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	81.8	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	81.4	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	83.0	71.3	134	
EP075I: Organochlorine Pesticides (QCLot: 4316042)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	85.2	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	84.0	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	93.1	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	86.4	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	87.4	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	87.7	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	91.7	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	84.8	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	89.1	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	89.4	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	85.8	69.4	134	
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	89.4	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	89.0	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	77.2	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	94.2	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	82.9	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	87.2	70.2	135	
EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	87.8	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	91.3	63.6	135	
EP075I: Organochlorine Pesticides (QCLot: 4316045)									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	85.8	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	83.6	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	87.5	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	87.2	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	85.0	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	88.6	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	86.3	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	88.5	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	89.2	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	86.5	69.4	134	
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	83.5	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	81.8	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	# 68.2	69.0	143	



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
EP075I: Organochlorine Pesticides (QCLot: 4316045) - continued									
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	62.0	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	79.3	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	81.2	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	79.6	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	80.6	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	83.0	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4314584)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	99.1	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4314585)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	85.4	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316041)									
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	110	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	102	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	108	70.0	130	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316044)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	91.9	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	104	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	101	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: 4314584)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	96.4	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: 4314585)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	88.3	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316041)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	105	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	112	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	119	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	111	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316044)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	94.3	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	113	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	92.1	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	108	70.0	130	



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	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315018)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	90.5	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	99.7	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	71.0	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	80.2	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	87.7	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	88.9	59.0	134	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	94.1	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	89.0	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	70.1	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	96.7	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	88.6	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	85.7	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315018)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	75.5	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.9	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.6	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.9	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.5	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.8	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.5	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.8	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.5	69.0	133	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	79.2	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.0	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.0	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.7	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.8	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.8	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.6	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.1	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315018)									



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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315018) - continued									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.4	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.5	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.5	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.2	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.0	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.1	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.7	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.2	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.4	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315018)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	92.7	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	82.0	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	101	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	107	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	98.6	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	94.0	64.0	140	
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	106	65.0	137	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	102	70.0	130	
EP231P: PFAS Sums (QCLot: 4315018)									
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	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4315022)									



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
EP231P: PFAS Sums (QCLot: 4315022) - continued									
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: 4317373)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	97.3	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	96.9	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	92.1	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	92.2	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.9	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	94.4	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318654)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	98.7	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	109	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	113	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	90.6	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	112	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318698)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	99.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	100	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	86.9	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.8	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	89.2	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	91.2	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318981)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	95.3	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	97.9	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	92.2	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.8	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	92.0	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	94.2	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318982)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	89.0	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	110	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: 4318982) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	111	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	96.3	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4317373)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	95.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	91.7	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	96.5	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	94.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.7	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	86.9	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	103	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318654)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.3	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	120	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	97.5	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.1	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	87.1	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	95.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	79.3	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318698)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	85.7	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	96.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	82.3	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.6	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	134



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318698) - continued									
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	86.6	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	100.0	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318981)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	93.0	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	83.9	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.5	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	94.7	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.6	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.2	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	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	87.9	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: 4318982)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	85.8	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	83.5	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	85.9	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	75.5	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	89.0	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	74.8	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.6	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	115	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4317373)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	119	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	98.3	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	93.2	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	97.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	96.2	61.0	135	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318654)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	109	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	100	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	107	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	105	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318698)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.2	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	98.2	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.0	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.7	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.2	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	96.1	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318981)									
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	98.7	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	89.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.4	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	99.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	117	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.5	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318982)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.5	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	119	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	105	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: 4318982) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.7	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	104	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	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4317373)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	96.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	100	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	107	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: 4318654)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	101	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	107	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	72.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318698)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	101	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	99.8	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	108	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	87.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318981)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	95.7	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	99.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	114	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	83.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318982)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	99.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	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	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	71.6	70.0	130
EP231P: PFAS Sums (QCLot: 4317373)								
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	----	----	----	----



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: 4318654)								
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: 4318698)								
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: 4318981)								
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: 4318982)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4315474)							
EM2207719-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	95.4	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	88.3	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	94.4	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	96.4	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	89.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	83.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	83.4	80.0	120
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4315477)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	80.5	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.5	79.7	116



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: 4315477) - continued							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EG005T: Chromium	7440-47-3	50 mg/kg	104	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	100	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	93.8	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	86.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	84.2	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315475)							
EM2207719-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	106	76.0	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4315476)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	110	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316693)							
EM2207664-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	87.3	58.0	114
EM2207664-002	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	101	58.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4316694)							
EM2207807-008	SX_OB_20220430_16_02_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	85.6	58.0	114
EM2207807-008	SX_OB_20220430_16_02_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	101	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319101)							
EM2207794-030	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	73.6	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4319102)							
EM2207807-018	SX_OB_20220501_12_24_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	83.8	70.0	130
EK040T: Fluoride Total (QCLot: 4316697)							
EM2207664-002	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	76.8	70.0	130
EK040T: Fluoride Total (QCLot: 4316698)							
EM2207807-008	SX_OB_20220430_16_02_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	74.2	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316040)							
EM2207719-005	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	100	59.6	152
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4316043)							
EM2207664-003	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	103	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4314584)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	96.5	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	103	55.1	124
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4314585)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	78.8	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	82.7	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4314584)							



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP074I: Volatile Halogenated Compounds (QCLot: 4314584) - continued							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	77.7	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	88.2	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	94.2	55.5	122
EP074I: Volatile Halogenated Compounds (QCLot: 4314585)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	67.0	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	76.0	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	77.7	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316042)							
EM2207719-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	87.1	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	95.4	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	77.7	10.0	144
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4316045)							
EM2207664-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	85.1	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	88.2	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	78.0	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316042)							
EM2207719-002	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	92.5	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	78.8	34.2	129
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4316045)							
EM2207664-002	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	88.8	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	79.1	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316042)							
EM2207719-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	83.5	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	88.5	37.8	152
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4316045)							
EM2207664-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	79.5	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	85.5	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4314584)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	94.6	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4314585)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	73.4	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316041)							
EM2207719-006	Anonymous	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	110	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	108	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	99.0	78.1	120



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316041) - continued							
EM2207719-006	Anonymous	EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	105	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4316044)							
EM2207664-009	Anonymous	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	94.8	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	107	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	103	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	104	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4314584)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	92.2	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4314585)							
EM2207807-016	SX_IB_20220501_12_15_SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	69.0	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316041)							
EM2207719-006	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	104	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	110	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	115	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	109	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4316044)							
EM2207664-009	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	97.0	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	116	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	95.3	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	111	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315018)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	85.1	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	84.2	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	89.0	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	81.1	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	92.4	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	119	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	87.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	75.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	91.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	101	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	95.5	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	84.5	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315018)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	72.5	71.0	135



Sub-Matrix: SOIL

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
				Low	High		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315018) - continued							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	88.8	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	79.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	89.2	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	89.0	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	88.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	72.4	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	89.2	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	79.5	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.00125 mg/kg	74.3	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	95.9	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	76.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	91.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	88.4	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.7	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	88.3	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	74.0	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	84.1	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	85.7	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.00125 mg/kg	73.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	89.2	69.0	133
		EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315018)					
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	87.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	80.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	84.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	75.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	93.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	107	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	90.1	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	93.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	85.7	70.0	130



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4315022) - continued							
EM2207617-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	74.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	78.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	85.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.8	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	85.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315018)							
EM2207807-002	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	88.7	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	96.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	95.1	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	78.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4315022)							
EM2207617-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	98.1	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	97.6	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	76.4	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: 4317373)							
EM2207797-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	102	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	92.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	98.8	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	88.5	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	91.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318654)							
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	90.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	109	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	115	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	120	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	87.7	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	98.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318698)							



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: 4318698) - continued							
EM2207807-029	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	102	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	99.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	97.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	114	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	92.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	70.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318981)							
EM2207616-013	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	94.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	98.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	90.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	97.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	87.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	86.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4318982)							
EM2207807-025	SX_IB_20220501_23_56_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	100	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	110	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	116	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	112	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	127	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4317373)							
EM2207797-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	95.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	99.0	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	95.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	93.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	98.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	96.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	89.1	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.5	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	81.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	102	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318654)					
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	87.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	88.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	113	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.3	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	93.5	71.0	133



Sub-Matrix: WATER

				Matrix Spike (MS) Report					
				Spike	SpikeRecovery(%)	Acceptable Limits (%)			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318654) - continued									
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	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	92.7	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	83.9	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	106	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	80.7	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	117	71.0	132		
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318698)									
EM2207807-029	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	87.4	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	90.7	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	98.9	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	79.9	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	89.4	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	# 71.8	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	# 44.1	65.0	144		
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	# 53.0	71.0	132				
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318981)									
EM2207616-013	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	94.4	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.8	72.0	129		
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	85.0	72.0	129		
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	92.1	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	95.1	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	81.8	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	92.1	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.8	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.5	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	103	71.0	132		
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318982)							
		EM2207807-025	SX_IB_20220501_23_56_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.25 µg/L	83.4	72.0	129		
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.25 µg/L	109	72.0	129		
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9			0.25 µg/L	92.8	72.0	130		
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1			0.25 µg/L	94.3	71.0	133		
EP231X: Perfluorononanoic acid (PFNA)	375-95-1			0.25 µg/L	84.3	69.0	130		
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2			0.25 µg/L	91.3	71.0	129		



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4318982) - continued							
EM2207807-025	SX_IB_20220501_23_56_SS_Primary_ALS	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	83.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	90.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	109	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4317373)							
EM2207797-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	104	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	94.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	94.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	99.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	100	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: 4318654)							
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	109	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	98.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	93.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	105	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	97.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318698)							
EM2207807-029	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	# 63.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	# 46.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	82.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	72.0	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: 4318698) - continued							
EM2207807-029	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	77.3	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	# 56.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318981)							
EM2207616-013	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	106	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	99.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	90.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	92.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	100	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	95.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4318982)							
EM2207807-025	SX_IB_20220501_23_56_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	105	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	133	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	123	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	96.9	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	106	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4317373)							
EM2207797-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	95.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	100	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	99.7	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	88.6	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318654)							
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	104	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	99.7	64.0	140



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318654) - continued							
EM2207807-004	SX_IB_20220430_11_51_SS_Primary_ALS	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 66.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318698)							
EM2207807-029	SX_IB_20220430_07_51_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	102	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 54.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318981)							
EM2207616-013	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	95.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	99.1	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	108	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	83.6	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4318982)							
EM2207807-025	SX_IB_20220501_23_56_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	102	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	99.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 66.7	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2207807	Page	: 1 of 26
Amendment	: 1		
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 02-May-2022
Site	: 20220502042154-ALS-21	Issue Date	: 09-May-2022
Sampler	: WOH + TB + DL + LR	No. of samples received	: 50
Order number	: ----	No. of samples analysed	: 48

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP075I: Organochlorine Pesticides	QC-4316045-001	----	Endrin aldehyde	7421-93-4	68.2 %	69.0-143%	Recovery less than lower control limit

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231B: Perfluoroalkyl Carboxylic Acids	EM2207807--029	SX_IB_20220430_07_51_SS_	Perfluorododecanoic acid (PFDoDA)	307-55-1	71.8 %	72.0-134%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2207807--029	SX_IB_20220430_07_51_SS_	Perfluorotridecanoic acid (PFTrDA)	72629-94-8	44.1 %	65.0-144%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2207807--029	SX_IB_20220430_07_51_SS_	Perfluorotetradecanoic acid (PFTeDA)	376-06-7	53.0 %	71.0-132%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2207807--029	SX_IB_20220430_07_51_SS_	N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	63.0 %	68.0-141%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2207807--029	SX_IB_20220430_07_51_SS_	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	46.2 %	70.0-130%	Recovery less than lower data quality objective
EP231C: Perfluoroalkyl Sulfonamides	EM2207807--029	SX_IB_20220430_07_51_SS_	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	56.2 %	61.0-135%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2207807--004	SX_IB_20220430_11_51_SS_	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	66.7 %	70.0-130%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2207807--029	SX_IB_20220430_07_51_SS_	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	54.0 %	70.0-130%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2207807--025	SX_IB_20220501_23_56_SS_	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	66.7 %	70.0-130%	Recovery less than lower data quality objective

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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



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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	08-May-2022	✓	04-May-2022	04-May-2022	✓
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	09-May-2022	✓	04-May-2022	04-May-2022	✓
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	07-May-2022	✓	04-May-2022	04-May-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	----	----	----	03-May-2022	15-May-2022	✓
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	----	----	----	03-May-2022	16-May-2022	✓
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	----	----	----	03-May-2022	14-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	
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	29-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	29-Oct-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-2022	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	03-May-2022	29-May-2022	✓	04-May-2022	29-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	30-May-2022	✓	04-May-2022	30-May-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	28-May-2022	✓	04-May-2022	28-May-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	03-May-2022	29-May-2022	✓	04-May-2022	10-May-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	30-May-2022	✓	04-May-2022	10-May-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	28-May-2022	✓	04-May-2022	10-May-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	05-May-2022	18-May-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	05-May-2022	18-May-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	05-May-2022	18-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	
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	29-May-2022	✓	06-May-2022	29-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	30-May-2022	✓	06-May-2022	30-May-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	28-May-2022	✓	06-May-2022	28-May-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	03-May-2022	29-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	03-May-2022	29-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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	
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS,	01-May-2022	02-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	09-May-2022	✓	03-May-2022	09-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	02-May-2022	07-May-2022	✓	03-May-2022	07-May-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS,	01-May-2022	02-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	09-May-2022	✓	03-May-2022	09-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	02-May-2022	07-May-2022	✓	03-May-2022	07-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS,	01-May-2022	02-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	09-May-2022	✓	03-May-2022	09-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	02-May-2022	07-May-2022	✓	03-May-2022	07-May-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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	
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-Jun-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS,	01-May-2022	02-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	09-May-2022	✓	03-May-2022	09-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	02-May-2022	07-May-2022	✓	03-May-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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 Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS,	01-May-2022	02-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	08-May-2022	✓	03-May-2022	08-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS,	01-May-2022	04-May-2022	15-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	09-May-2022	✓	03-May-2022	09-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	04-May-2022	16-May-2022	✓	04-May-2022	13-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	02-May-2022	07-May-2022	✓	03-May-2022	07-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	04-May-2022	14-May-2022	✓	04-May-2022	13-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS,	01-May-2022	03-May-2022	28-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
EP231B: Perfluoroalkyl Carboxylic Acids									
HDPE Soil Jar (EP231X) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS,	01-May-2022	03-May-2022	28-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	03-May-2022	12-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		
EP231C: Perfluoroalkyl Sulfonamides									
HDPE Soil Jar (EP231X) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS,	01-May-2022	03-May-2022	28-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE Soil Jar (EP231X) SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS,	01-May-2022	03-May-2022	28-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	03-May-2022	12-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_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS	SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS,	01-May-2022	03-May-2022	28-Oct-2022	✓	03-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X)									
SX_IB_20220501_19_58_SS_Primary_ALS,	SX_IB_20220501_23_56_SS_Primary_ALS	01-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X)									
SX_IB_20220502_04_06_SS_Primary_ALS		02-May-2022	03-May-2022	29-Oct-2022	✓	04-May-2022	12-Jun-2022	✓	
HDPE Soil Jar (EP231X)									
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS,	30-Apr-2022	03-May-2022	27-Oct-2022	✓	03-May-2022	12-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)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_51_SS_Primary_ALS, SX_OB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220502_04_06_SS_Primary_ALS, SX_OB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_11_51_SS_Primary_ALS, SX_OB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_17_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220501_23_56_SS_Primary_ALS,	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS, SX_IB_20220502_04_06_SS_Primary_ALS	03-May-2022	04-May-2022	30-Oct-2022	✓	04-May-2022	30-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220430_20_14_SR_Rinsate_ALS,	SX_OB_20220430_20_15_SB_Blank_ALS	30-Apr-2022	04-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-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	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS, SX_IB_20220502_04_06_SS_Primary_ALS, SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS,	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_OB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS	03-May-2022	04-May-2022	30-Oct-2022	✓	04-May-2022	30-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220430_20_14_SR_Rinsate_ALS,	SX_OB_20220430_20_15_SB_Blank_ALS	30-Apr-2022	04-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-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_IB_20220430_07_47_SS_Primary_ALS, SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_51_SS_Primary_ALS, SX_OB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220502_04_06_SS_Primary_ALS, SX_OB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_11_51_SS_Primary_ALS, SX_OB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_17_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220501_23_56_SS_Primary_ALS,	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS, SX_IB_20220502_04_06_SS_Primary_ALS	03-May-2022	04-May-2022	30-Oct-2022	✓	04-May-2022	30-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220430_20_14_SR_Rinsate_ALS,	SX_OB_20220430_20_15_SB_Blank_ALS	30-Apr-2022	04-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-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	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_58_SS_Primary_ALS, SX_IB_20220502_04_06_SS_Primary_ALS, SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_IB_20220501_08_20_SS_Duplicate_ALS, SX_IB_20220501_12_21_SS_Primary_ALS, SX_IB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS,	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_51_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS,	03-May-2022	04-May-2022	30-Oct-2022	✓	04-May-2022	30-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220430_20_14_SR_Rinsate_ALS,	SX_OB_20220430_20_15_SB_Blank_ALS	30-Apr-2022	04-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-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_IB_20220430_07_47_SS_Primary_ALS, SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220502_04_06_SS_Primary_ALS, SX_OB_20220430_07_51_SS_Duplicate_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220430_20_08_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_17_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_49_SS_Primary_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_OB_20220501_23_56_SS_Primary_ALS,	SX_IB_20220430_07_51_SS_Duplicate_ALS, SX_IB_20220430_11_55_SS_Primary_ALS, SX_IB_20220430_15_52_SS_Primary_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_00_12_SS_Primary_ALS, SX_IB_20220501_08_17_SS_Primary_ALS, SX_IB_20220501_12_15_SS_Primary_ALS, SX_OB_20220501_12_24_SS_Primary_ALS, SX_IB_20220501_16_18_SS_Primary_ALS, SX_IB_20220501_19_49_SS_Primary_ALS, SX_IB_20220501_23_56_SS_Primary_ALS, SX_IB_20220430_07_47_SS_Primary_ALS, SX_OB_20220430_08_01_SS_Primary_ALS, SX_OB_20220430_11_55_SS_Primary_ALS, SX_OB_20220430_15_58_SS_Triplicate_ALS, SX_OB_20220430_16_02_SS_Primary_ALS, SX_OB_20220501_04_13_SS_Primary_ALS, SX_OB_20220501_08_20_SS_Duplicate_ALS, SX_OB_20220501_12_21_SS_Primary_ALS, SX_OB_20220501_16_12_SS_Primary_ALS, SX_OB_20220501_16_24_SS_Triplicate_ALS, SX_OB_20220501_19_58_SS_Primary_ALS, SX_IB_20220502_04_06_SS_Primary_ALS	03-May-2022	04-May-2022	30-Oct-2022	✓	04-May-2022	30-Oct-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220430_20_14_SR_Rinsate_ALS,	SX_OB_20220430_20_15_SB_Blank_ALS	30-Apr-2022	04-May-2022	27-Oct-2022	✓	04-May-2022	27-Oct-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	
Analytical Methods							
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	36	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	31	12.90	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	31	12.90	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	4	23	17.39	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	23	8.70	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	2	23	8.70	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	23	8.70	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	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	23	8.70	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	9	70	12.86	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	70	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	70	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	70	7.14	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 soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	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.