TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

1. Motherhub Summary

Source TBM/Bin at Pivot	1	Source Geological Domain	5
Approx. Source Tunnel Chainage From	832	Approx. Source Tunnel Chainage To	841
Approx. Rings From	350	Approx. Rings To	353
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	C02.03	Start of Filling From (Time / date)	01/06/2022
Tonnes Put in Holding Bay No:	7784.86	Finish of Filling (Time / Date)	03/06/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 307.69	Approx. Bank Cubic Meters (BCM)	1720.21

2. Agon Spoil Classification Decision

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

3. Agon Spoil Classification Assessment

3.1 Applicable Samples

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

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

Table 3.1 - Applicable Sample ID's

Table 3.1 - 1 Applicable Sample ID's

Applicable Spoil Sample ID's		
SX_OB_20220603_00_05_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_09_12_SS_Primary_ALS
SX_OB_20220602_20_03_SS_Primary_ALS	SX_OB_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_09_13_SS_Duplicate_ALS
SX_OB_20220602_19_56_SS_Primary_EUF	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220601_08_05_SS_Primary_ALS
SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_12_20_SS_Primary_EUF	
SX_OB_20220602_15_52_SS_Triplicate_ALS	SX_OB_20220602_09_13_SS_Triplicate_EUF	
Total Sample Numbers	13	Ratio Acceptable
Primary Sample Numbers	9	Yes
Classified Volume (LCM)	4000 m^3	
Volume: Sample Number Ratio (Samples per LCM)	1 : 307.69	

3.2 Data Quality Compliance with SAQP

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

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

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

3.3 Selection of the Spoil Sample Testing Regime

Table 3.3 - 1 Selection of the Spoil Sample Testing Regime

	(State Yes or No in each Row)
A. Is testing all spoil samples taken required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain If the answer is Yes, go to E. If the answer is No, go to B.	**No**
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? If the answer is Yes, go to C. If the answer is No, go to D.	**Yes**
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)?	**No**
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)?	**N/A**
E. Based on the answers to Questions A to D above, was the default testing regime (as defined in the SAQP) applied to the spoil in this Holding Bay?	**Yes, see section 4**
F. Based on the answers to Questions A to D above, was the Minimum testing Regime (as defined in the SAQP) applied to the spoil in this Holding Bay?	**No**

3.4 Spoil Compliance with SAQP Criteria for Containment Cell

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

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

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	13*	9	1 : 307.69	13	34	52.15	60.31	96	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	13*	9	1 : 307.69	13	43	143.7	174	240	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)

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

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

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	

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

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	13*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	13*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	13*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	13*	9	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	13*	9	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	13*	9	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	13*	9	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment

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

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

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

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												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

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	

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

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												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0320220614135152_01	This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01

4. Comments and Limitations

	Comments and Limitations
1.	Naturally Occurring Chemicals listed in IWRG 621.1 that are within the Background range despite being reported at concentrations that would otherwise categorise the material as PIW: 1. Technical discussion around the naturally occurring metal concentrations found in soils beneath the WGTP is detailed in *Golder (2017b) – Technical Report B, Appendix E – Environmental characterisation of spoil (natural soil and rock).* The report indicates that elevated metals (including arsenic, nickel, copper, chromium (CrVI), zinc and mercury) were considered to be associated with natural enrichment instead of anthropogenic contamination. a. **Arsenic** – *Golder (2017b) – Technical Report B, Appendix E* section 6.2 *Arsenic enrichment in the residual soil of the upper Older Volcanics (Tvo1)* found that while the soil of the upper Older Volcanics sub-unit contains arsenic, the arsenic is not characteristic of the wider sub unit (i.e the rock) or the lower sub-unit (soil or rock). The concentration of arsenic therefore appears to be related to the chemical and biological weather of the unit over time. This is further supported by: 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. 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. b. **Nickel** – *Golder (2017b) – Technical Report B, Appendix E* section 6.3 *Nickel enrichment within the upper Older Volcanics* found that 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.

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

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C02.0320220614135152_01**	**This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01**

5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C02.0320220614135152_01**	**This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01**

ATTACHMENT A: TABULATED RESULTS

								Metals						
								Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL								2	1	5	5	1	5	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold														
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold														
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold														
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold														
EPA Victoria IWRG621 Category B Leached Upper Limits														
EPA Victoria IWRG621 Category B Upper Limits								2,000	400	20,000		2,000	6,000	300
EPA Victoria IWRG621 Category C Leached Upper Limits														
EPA Victoria IWRG621 Category C Upper Limts								500	100	5,000		500	1,500	75
EPA Victoria IWRG621 Fill Upper Limits								20	3	100		1	300	1
Location Code	**Field ID**	**Sample Code**	**Date**	**Lab Report Number**	**Lab Name**	**Sample Type**	**Parent Sample**							
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	EM2210378003	1/06/2022	EM2210378	ALSE-Melbourne	Normal	EM2210378	54	<1	43	70	<1.0	<5	<0.1
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	EM2210378014	1/06/2022	EM2210378	ALSE-Melbourne	Normal								
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	EM2210521001	2/06/2022	EM2210521	ALSE-Melbourne	Normal		59	<1	44	78	<1.0	5	<0.1
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	EM2210521012	2/06/2022	EM2210521	ALSE-Melbourne	Normal								
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	EM2210521002	2/06/2022	EM2210521	ALSE-Melbourne	Field_D	EM2210521001	46	<1	48	98	<1.0	<5	<0.1
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	EM2210521013	2/06/2022	EM2210521	ALSE-Melbourne	Field_D	EM2210521012							
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	M22-Jn0006482	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521001	47	<1	53	95	<1	<5	<0.1
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	M22-Jn0006493	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521001							
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	M22-Jn0006502	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521012							
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	EM2210521004	2/06/2022	EM2210521	ALSE-Melbourne	Normal		34	<1	40	94	<1.0	<5	<0.1
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	EM2210521015	2/06/2022	EM2210521	ALSE-Melbourne	Normal								
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	M22-Jn0006485	2/06/2022	894364	Eurofins Environment ANZ	Normal		47	<1	57	130	<1	5.5	<0.1
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	M22-Jn0006496	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	M22-Jn0006505	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	M22-Jn0006486	2/06/2022	894364	Eurofins Environment ANZ	Normal		67	<1	90	140	<1	5.5	<0.1
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	M22-Jn0006497	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	M22-Jn0006506	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	M22-Jn0006487	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006486	36	<1	75	140	<1	<5	<0.1
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	M22-Jn0006498	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006497							
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	M22-Jn0006507	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006506							
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	EM2210521005	2/06/2022	EM2210521	ALSE-Melbourne	Interlab_D	M22-Jn0006486	35	<1	64	87	<1.0	<5	<0.1
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	EM2210521016	2/06/2022	EM2210521	ALSE-Melbourne	Interlab_D	M22-Jn0006506							
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	EM2210521006	2/06/2022	EM2210521	ALSE-Melbourne	Normal		53	<1	32	81	<1.0	6	<0.1
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	EM2210521017	2/06/2022	EM2210521	ALSE-Melbourne	Normal								
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	M22-Jn0006488	2/06/2022	894364	Eurofins Environment ANZ	Normal		96	<1	74	110	<1	7.1	<0.1
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	M22-Jn0006499	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	M22-Jn0006508	2/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	EM2210521007	2/06/2022	EM2210521	ALSE-Melbourne	Normal		59	<1	26	77	<1.0	6	<0.1
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	EM2210521018	2/06/2022	EM2210521	ALSE-Melbourne	Normal								
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	M22-Jn0006489	3/06/2022	894364	Eurofins Environment ANZ	Normal		45	<1	77	150	<1	<5	<0.1
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	M22-Jn0006500	3/06/2022	894364	Eurofins Environment ANZ	Normal								
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	M22-Jn0006509	3/06/2022	894364	Eurofins Environment ANZ	Normal								

								PAH													
		Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		5	5	5	2	10	5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits		4,000	12,000	200	720		140,000	400									20				
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts		1,000	3,000	50	180	500	35,000	100									5				
EPA Victoria IWRG621 Fill Upper Limits		40	60	10	10	50	200	20									1				
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	<5	101	<5	<2	<10	62	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<5	114	<5	<2	<10	61	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<5	116	<5	<2	<10	70	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<5	130	<5	<2	<10	85			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	<5	98	<5	<2	<10	56	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<5	160	<5	<2	<10	97			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<5	240	<5	<2	<10	160			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<5	230	<5	<2	<10	150			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<5	148	<5	<2	<10	87	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																				
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	<5	78	<5	<2	<10	43	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<5	190	<5	<2	<10	130			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	<5	43	<5	<2	<10	28	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<5	220	<5	<2	<10	140			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				

										BTEX						TRH					
		Dibenz(a,h)anthracene	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
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits									400	16											
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts									100	4											
EPA Victoria IWRG621 Fill Upper Limits									20	1											
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	<0.5	<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
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.5	<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
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<0.5	<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
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.5	<0.5	<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	56	56	<100	<100
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	<0.5	<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
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<0.5	<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
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																				
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	<0.5	<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
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	<0.5	<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
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.5	<0.5	<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
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				

			TPH					Organochlorine Pesti													
		C10-C40 (Sum of total)	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
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		50	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
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits			2,600				40,000			4.8				50							16
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts			650				10,000			1.2				50							4
EPA Victoria IWRG621 Fill Upper Limits			100				1,000														
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	<50	<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	<0.10
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<100	<20	58	<50	<50	58	<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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<100	<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
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<100	<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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<100	<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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<100	<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
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																				
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<100	<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
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	<50	<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	<0.10
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<100	<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
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				

		cides																			
		Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits					4.8									50							
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts					1.2									10							
EPA Victoria IWRG621 Fill Upper Limits													1								
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	<0.03	<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
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.03	<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
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																				
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<0.03	<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
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																				
C02.03	SX_OB_20220602_09_13_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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																				
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	<0.03	<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
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																				
C02.03	SX_OB_20220602_12_20_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
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_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
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																				
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<0.03	<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
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																				
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	<0.03	<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
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																				
C02.03	SX_OB_20220602_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
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																				
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	<0.03	<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
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																				
C02.03	SX_OB_20220603_00_05_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
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																				

		Phenols																			
		2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg
EQL		0.05	5	10	0.03	0.5	20	1	20	0.5	0.2	1	5	0.4	5	20	0.5	1	20	0.00001	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits							320	2,200													
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts							10	560													
EPA Victoria IWRG621 Fill Upper Limits							1	60													
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																			<0.00005	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																			<0.00005	
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																			<0.00005	
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																			<0.00001	
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																			<0.00001	
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																			<0.00005	
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																			<0.00001	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																			<0.00005	
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																			<0.00005	
C02.03	SX_OB_20220602_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
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																			<0.00005	
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF		<5	<10		<0.5	<20			<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																			<0.00001	
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																			<0.00001	

		8:2 Fluorotelomer sulfonic acid (8:2 FTS)		6:2 Fluorotelomer sulfonic acid (6:2 FTS)		4:2 Fluorotelomer sulfonic acid (4:2 FTS)		N-Ethyl perfluorooctane sulfonamide (NEtFOSA)		N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)		N-Methyl perfluorooctane sulfonamide (NMeFOSA)		N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)		Perfluorobutanoic acid (PFBA)	
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL		0.00001	0.005	0.00005	0.01	0.00001	0.005	0.00005	0.005	0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00002	0.01	0.00005	0.005	0.00005	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits																					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts																					
EPA Victoria IWRG621 Fill Upper Limits																					
Location Code	**Field ID**																				
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00002	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00002	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00002		<0.00005		<0.00005		<0.00002		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	

		PFOS/PFOA																			
		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecanesulfonic acid (PFDS)		Perfluoroheptanoic acid (PFHpA)		Perfluoroheptane sulfonic acid (PFHpS)		Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid (PFNA)		Perfluorononanesulfonic acid (PFNS)(trace)		Perfluorooctanoic acid (PFOA)	
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL		0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																				0	
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																				0.00056	
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																				0.0056	
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																				0.056	
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits																					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts																					
EPA Victoria IWRG621 Fill Upper Limits																					
Location Code	**Field ID**																				
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002				<0.00001	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	

		Perfluorooctane sulfonamide (PFOSA)		Perfluoropentanoic acid (PFPeA)		Perfluoropentane sulfonic acid (PFPeS)		Perfluoropropanesulfonic acid (PFPrS)		Perfluorotetradecanoic acid (PFTeDA)		Perfluorotridecanoic acid (PFTrDA)		Perfluoroundecanoic acid (PFUnDA)		Perfluorooctanesulfonic acid (PFOS)		Perfluorohexane sulfonic acid (PFHxS)		Sum of PFHxS and PFOS	
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL		0.00002	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																				0	
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																				0.00007	
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																				0.0007	
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																				0.007	
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits																					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts																					
EPA Victoria IWRG621 Fill Upper Limits																					
Location Code	**Field ID**																				
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220601_08_05_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_12_19_SS_Primary_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_12_20_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_50_SS_Duplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_15_58_SS_Primary_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_19_56_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050
C02.03	**SX_OB_20220602_20_03_SS_Primary_ALS**	<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220603_00_05_SS_Primary_EUF**	<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	

		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		Sum of PFAS		1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.00001	0.005	0.00001	0.005	0.00001	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits																					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts																					
EPA Victoria IWRG621 Fill Upper Limits																					
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS					<0.00001	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS					<0.00001															
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					<0.00010															
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS					<0.00010															
C02.03	SX_OB_20220602_09_13_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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS					<0.00010															
C02.03	SX_OB_20220602_12_20_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
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_15_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
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_15_51_SS_Duplicate_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
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS					<0.00010															
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS					<0.00010															
C02.03	SX_OB_20220602_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
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50		
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS					<0.00010															
C02.03	SX_OB_20220603_00_05_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
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.00001		<0.00001		<0.0001															

		Chlorinated Hydrocarbons																NA			
		Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVic	Trichloroethene	Chlorinated hydrocarbons EPAVic	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*		Moisture Content	Arochlor 1232
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	UG/KG	%	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.05	1	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits				11	50						4.8										
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts				2.8	10						1.2										
EPA Victoria IWRG621 Fill Upper Limits							1														
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.01	<10.0	25.4	
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																	<0.01			
C02.03	SX_OB_20220602_09_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	<0.05	<10.0	29.3	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																	<0.05			
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.05	<10.0	29.1	
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																	<0.05			
C02.03	SX_OB_20220602_09_13_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		<10		<0.1
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																		<0.05		
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																		<0.05		
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.05	<10.0	25.8	
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																	<0.05			
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<10		<0.1
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_15_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	<0.5		<10		<0.1
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_15_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	<0.5		<10		<0.1
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																		<0.05		
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																		<0.05		
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.05	<10.0	29.6	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																	<0.05			
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.05	<10.0	26.4	
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																	<0.05			
C02.03	SX_OB_20220602_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	<0.5		<10		<0.1
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<0.05	<10.0	28.1	
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																	<0.05			
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<10		<0.1
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																		<0.05		
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																		<0.05		

		PCBs							Inorganics								Halogenated Benzenes				
		Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride	Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100	1	5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																					
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																					
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																					
EPA Victoria IWRG621 Category B Leached Upper Limits																					
EPA Victoria IWRG621 Category B Upper Limits														40,000		10,000					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limts														10,000		2,500					
EPA Victoria IWRG621 Fill Upper Limits								2						450		50					
Location Code	**Field ID**																				
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS							<0.1	1.4	5.1	8.6	5.0		190		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS									9.7											
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS							<0.1	1.6	5.2	8.7	5.0		190		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS									7.3											
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS							<0.1	1.6	5.1	8.6	5.0		230		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS									9.3											
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF									5.2		4.9									
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF									7.1		6.6									
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS							<0.1	1.5	5.0	8.6	5.0		180		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS									9.1											
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF									4.9		4.9									
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF									8.4		6.6									
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF									5.0		4.9									
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1													
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF									8.5		6.6									
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.2	<100	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF									4.9		4.9									
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF									8.4		6.6									
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS							<0.1	1.6	5.1	9.0	5.0		210		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS									9.3											
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS							<0.1	1.5	5.1	8.4	5.0		210		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS									9.0											
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.8	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF									5.1		4.9									
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF									8.6		6.6									
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS							<0.1	1.5	5.1	8.5	5.0		190		<5	<0.50	<0.50		<0.50	
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS									9.2											
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.7	<100	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF									5.1		4.9									
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF									8.6		6.6									

				Halogenated Hydrocarbons						MAH						Solvents					SPOCAS
		4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocylic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																				
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																				
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																				
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																				
EPA Victoria IWRG621 Category B Leached Upper Limits																				
EPA Victoria IWRG621 Category B Upper Limits										240										
EPA Victoria IWRG621 Category C Leached Upper Limits																				
EPA Victoria IWRG621 Category C Upper Limts										70										
EPA Victoria IWRG621 Fill Upper Limits										7										
Location Code	**Field ID**																			
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS		<0.50							<0.5		<0.5								7.8
C02.03	SX_OB_20220601_08_05_SS_Primary_ALS																			
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS		<0.50							<0.5		<0.5								7.7
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																			
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS		<0.50							<0.5		<0.5								7.8
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																			
C02.03	SX_OB_20220602_09_13_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	
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																			
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																			
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS		<0.50							<0.5		<0.5								7.6
C02.03	SX_OB_20220602_12_19_SS_Primary_ALS																			
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																			
C02.03	SX_OB_20220602_12_20_SS_Primary_EUF																			
C02.03	SX_OB_20220602_15_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	<0.5	<0.5	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			
C02.03	SX_OB_20220602_15_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	<0.5	<0.5	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																			
C02.03	SX_OB_20220602_15_51_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	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																			
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																			
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS		<0.50							<0.5		<0.5								7.8
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																			
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS		<0.50							<0.5		<0.5								7.6
C02.03	SX_OB_20220602_15_58_SS_Primary_ALS																			
C02.03	SX_OB_20220602_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	<0.5	<0.5	
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																			
C02.03	SX_OB_20220602_19_56_SS_Primary_EUF																			
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS		<0.50							<0.5		<0.5								7.9
C02.03	SX_OB_20220602_20_03_SS_Primary_ALS																			
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																			
C02.03	SX_OB_20220603_00_05_SS_Primary_EUF																			

							Metals									
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							2	1	5	5	1	5	0.1	5	5	5
Location Code	**Field ID**	**Date**	**Lab Report Number**	**Lab Name**	**Sample Type**	**Parent Sample**										
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	1/06/2022	EM2210378	ALSE-Melbourne	Field_D	EM2210378002	34	<1	52	100	1.2	<5	<0.1	<5	157	<5
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	1/06/2022	EM2210378	ALSE-Melbourne	Field_D	EM2210378002	34	<1	52	100	1.2	<5	<0.1	<5	157	<5
RPD							0	0	0	0	0	0	0	0	0	0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	1/06/2022	EM2210378	ALSE-Melbourne	Field_D	EM2210378013										
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	1/06/2022	EM2210378	ALSE-Melbourne	Field_D	EM2210378013										
RPD																
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	894364	Eurofins Environment ANZ	Normal		67	<1	90	140	<1	5.5	<0.1	<5	240	<5
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006486	36	<1	75	140	<1	<5	<0.1	<5	230	<5
RPD							**60**	0	18	0	0	10	0	0	4	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	894364	Eurofins Environment ANZ	Normal		67	<1	90	140	<1	5.5	<0.1	<5	240	<5
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Interlab_D	M22-Jn0006486	35	<1	64	87	<1.0	<5	<0.1	<5	148	<5
RPD							**63**	0	34	47	0	10	0	0	**47**	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	894364	Eurofins Environment ANZ	Normal											
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006497										
RPD																
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	894364	Eurofins Environment ANZ	Normal											
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Field_D	M22-Jn0006506										
RPD																
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	894364	Eurofins Environment ANZ	Normal											
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Interlab_D	M22-Jn0006506										
RPD																
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Normal		59	<1	44	78	<1.0	5	<0.1	<5	114	<5
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Field_D	EM2210521001	46	<1	48	98	<1.0	<5	<0.1	<5	116	<5
RPD							25	0	9	23	0	0	0	0	2	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Normal		59	<1	44	78	<1.0	5	<0.1	<5	114	<5
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521001	47	<1	53	95	<1	<5	<0.1	<5	130	<5
RPD							23	0	19	20	0	0	0	0	13	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Normal		59	<1	44	78	<1.0	5	<0.1	<5	114	<5
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521001										
RPD																
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Normal											
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Field_D	EM2210521012										
RPD																
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	2/06/2022	EM2210521	ALSE-Melbourne	Normal											
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	2/06/2022	894364	Eurofins Environment ANZ	Interlab_D	EM2210521012										
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																	
		Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		2	10	5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<2	<10	95	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<2	<10	95	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0		0		0	0	0	0	0
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<2	<10	160			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<2	<10	150			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	6			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<2	<10	160			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<2	<10	87	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	**59**			0	0	0	0	0	0	0	0		0		0	0	0	0	0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<2	<10	61	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<2	<10	70	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	14	0	0	0	0	0	0	0	0	0	0		0		0	0	0	0	0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<2	<10	61	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<2	<10	85			<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
RPD		0	0	33			0	0	0	0	0	0	0	0		0		0	0	0	0	0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<2	<10	61	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**																					
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**																					
C02.03	**SX_OB_20220602_09_13_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 multipli**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.**

						BTEX						TRH							TPH			
		Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50	20	20	50	50
Location Code	**Field ID**																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_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
C06.03	SX_IB_20220601_07_58_SS_Duplicate_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
RPD		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
C02.03	SX_OB_20220602_15_52_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
RPD		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_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
C02.03	SX_OB_20220602_09_13_SS_Duplicate_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
RPD		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	56	56	<100	<100	<100	<20	58	<50	<50
RPD		0	0	0		0	0	0	0	0	0	0	0	11	11	0	0	0	0	15	0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_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 multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

			Organochlorine Pesticides																		
		+C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	a-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
EQL		50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05	0.05
Location Code	**Field ID**																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	58	<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
RPD		15	0	0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_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 multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

									Phenols														
		b-BHC	d-BHC	g-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol	2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexylphenol	Phenols (halogenated) EPAVic
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.05	0.05	0.05	0.05	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	1
Location Code	**Field ID**																						
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0		0	0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0		0	0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0		0				0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0		0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20	
RPD		0	0	0	0		0	0	0	0	0	0	0	0	0		0				0	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_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 multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		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)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)		8:2 Fluorotelomer sulfonic acid (8:2 FTS)		6:2 Fluorotelomer sulfonic acid (6:2 FTS)		4:2 Fluorotelomer sulfonic acid (4:2 FTS)		N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL		20	0.5	0.2	1	5	0.4	5	20	0.5	1	20	0.00001	0.005	0.00001	0.005	0.00005	0.01	0.00001	0.005	0.00005	0.005
Location Code	**Field ID**																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD		0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF		<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF		<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005
RPD			0	0	0	0	0	0	0	0	0	0		0		0		0		0		0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF		<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD			0	0	0	0	0	0	0	0				0		0		0		0		0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD		0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
RPD		0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF		<0.5	<0.2	<1	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005
RPD			0	0	0	0	0	0	0	0				0		0		0		0		0
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS	<20	<1	<1	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
RPD													0		0		0		0		0	
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS												<0.00005		<0.00005		<0.00005		<0.00005		<0.00005	
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF												<0.00001		<0.00001		<0.00005		<0.00001		<0.00005	
RPD													0		0		0		0		0	

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)		N-Methyl perfluorooctane sulfonamide (NMeFOSA)		N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)		Perfluorobutanoic acid (PFBA)		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecanesulfonic acid (PFDS)		Perfluoroheptanoic acid
		mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
EQL		0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001
Location Code	**Field ID**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00002	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00002	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002		<0.00005		<0.00005		<0.00002		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002		<0.00005		<0.00005		<0.00002		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD			0		0		0		0		0		0		0		0		0		0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD			0		0		0		0		0		0		0		0		0		0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD			0		0		0		0		0		0		0		0		0		0	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD		0		0		0		0		0		0		0		0		0		0		0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.**

		PFOS/PFOA																					
		(PFHpA)	Perfluoroheptane sulfonic acid (PFHpS)		Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid (PFNA)		Perfluorononanesulfonic acid (PFNS)(trace)		Perfluorooctanoic acid (PFOA)		Perfluorooctane sulfonamide (PFOSA)		Perfluoropentanoic acid (PFPeA)		Perfluoropentane sulfonic acid (PFPeS)		Perfluoropropanesulfonic acid (PFPrS)		Perfluorotetradecanoic acid (PFTeDA)	
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	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	0.00002	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
Location Code	**Field ID**																						
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
RPD		0	0	0	0	0	0	0			0	0	0	0	0	0	0	0			0	0
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**		<0.00002		<0.00002		<0.00002				<0.00001		<0.00002		<0.00002		<0.00002				<0.00005	
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**		<0.00002		<0.00002		<0.00002				<0.00001		<0.00002		<0.00002		<0.00002				<0.00005	
RPD			0		0		0				0		0		0		0				0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD		0		0		0		0		0		0		0		0		0		0		0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
RPD		0		0		0		0				0		0		0		0				0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
RPD			0		0		0		0		0		0		0		0		0		0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
RPD			0		0		0		0		0		0		0		0		0		0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005	
RPD			0		0		0				0		0		0		0				0	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
RPD		0	0	0	0	0	0	0			0	0	0	0	0	0	0	0			0	0
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
RPD		0	0	0	0	0	0	0			0	0	0	0	0	0	0	0			0	0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
RPD		0		0		0		0				0		0		0		0				0
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
RPD			0		0		0				0		0		0		0				0	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005	
RPD			0		0		0				0		0		0		0				0	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
RPD			0		0		0				0		0		0		0				0	

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.

		Perfluorotridecanoic acid (PFTrDA)		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					
		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
EQL		0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.05	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00001	<0.0500		<0.50		<0.50	
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00001	<0.0500		<0.50		<0.50	
RPD		0	0	0	0	0	0	0	0	0	0					0	0		0		0	
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00001						
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00001						
RPD		0		0		0		0		0						0						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
RPD			0		0		0		0		0		0		0		0	0	0	0	0	0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
RPD			0		0		0		0		0						0		0		0	
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
RPD		0		0		0		0		0		0		0		0						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
RPD		0		0		0		0		0		0		0		0						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010						
RPD		0		0		0		0		0						0						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
RPD		0	0	0	0	0	0	0	0	0	0					0	0		0		0	
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
RPD		0	0	0	0	0	0	0	0	0	0					0	0		0		0	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5
RPD			0		0		0		0		0						0		0		0	
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50	
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
RPD		0		0		0		0		0						0						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010						
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010						
RPD		0		0		0		0		0						0						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**	<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010						
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001						
RPD		0		0		0		0		0						0						

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multipli

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		Chlorinated Hydrocarbons																				
		1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVic	Trichloroethene	Chlorinated hydrocarbons EPAVic	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																					
C06.03	SX_IB_20220601_07_58_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
C06.03	SX_IB_20220601_07_58_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
RPD				0		0	0	0				0	0	0	0	0	0	0		0		0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_15_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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_51_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	0	0
C02.03	SX_OB_20220602_15_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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	SX_OB_20220602_15_52_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
RPD				0		0	0	0				0	0	0	0	0	0	0		0		0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF																					
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_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
C02.03	SX_OB_20220602_09_13_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
RPD				0		0	0	0				0	0	0	0	0	0	0		0		0
C02.03	SX_OB_20220602_09_12_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
C02.03	SX_OB_20220602_09_13_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
C02.03	SX_OB_20220602_09_12_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
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS																					
RPD																						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS																					
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF																					
RPD																						

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

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						NA			PCBs								Inorganics					
		Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride
		mg/kg	mg/kg	mg/kg	mg/kg	µg/L	UG/KG	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg
EQL		0.5	0.5	0.5	0.5		0.05	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Location Code	**Field ID**																					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS			<0.50	<0.50	<0.01	<10.0	29.0							<0.1	1.4	5.1	9.2	5.0		180
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS			<0.50	<0.50	<0.01	<10.0	29.0							<0.1	1.4	5.1	9.2	5.0		180
RPD				0	0	0	0	0							0	0	0	0	0		0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					<0.01											10.1				
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					<0.01											10.1				
RPD						0											0				
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5		<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5		<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.2	<100
RPD		0	0	0	0		0		0	0	0	0	0	0	0	0					19	0
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5		<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS			<0.50	<0.50	<0.05	<10.0	29.6							<0.1	1.6	5.1	9.0	5.0			210
RPD				0	0		0								0							71
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF						<0.05										5.0		4.9			
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF						<0.05										4.9		4.9			
RPD							0										2		0			
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF						<0.05										8.5		6.6			
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF						<0.05										8.4		6.6			
RPD							0										1		0			
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF						<0.05										8.5		6.6			
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS					<0.05											9.3					
RPD																	9					
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS			<0.50	<0.50	<0.05	<10.0	29.3							<0.1	1.6	5.2	8.7	5.0			190
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS			<0.50	<0.50	<0.05	<10.0	29.1							<0.1	1.6	5.1	8.6	5.0			230
RPD				0	0	0	0	1							0	0	2	1	0			19
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS			<0.50	<0.50	<0.05	<10.0	29.3							<0.1	1.6	5.2	8.7	5.0			190
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5		<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.8	<100
RPD				0	0		0									0						62
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS			<0.50	<0.50	<0.05	<10.0	29.3							<0.1	1.6	5.2	8.7	5.0			190
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF						<0.05										5.2		4.9			
RPD							0										0		2			
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					<0.05											7.3					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS					<0.05											9.3					
RPD						0											24					
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					<0.05											7.3					
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF						<0.05										7.1		6.6			
RPD																	3					

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

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				Halogenated Benzenes							Halogenated Hydrocarbons					MAH						
		Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocylic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone
		%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
RPD			0	0	0		0			0							0		0			
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**																					
C06.03	**SX_IB_20220601_07_58_SS_Duplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
RPD		10	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
RPD			0	0	0		0			0									0			
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_51_SS_Duplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_15_50_SS_Primary_EUF**																					
C02.03	**SX_OB_20220602_15_52_SS_Triplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
RPD			0	0	0		0			0							0		0			
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
RPD			0	0	0		0			0							0		0			
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
RPD			0	0	0		0			0									0			
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
C02.03	**SX_OB_20220602_09_13_SS_Triplicate_EUF**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**																					
C02.03	**SX_OB_20220602_09_13_SS_Duplicate_ALS**																					
RPD																						
C02.03	**SX_OB_20220602_09_12_SS_Primary_ALS**																					
C02.03	**SX_OB_20220602_09_13_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 multipli**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.**

		Solvents				SPOCAS
		Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	mg/kg	mg/kg	mg/kg	-
EQL		0.5	0.5	0.5	0.5	0.1
Location Code	**Field ID**					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					7.7
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					7.7
RPD						0
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					
C06.03	SX_IB_20220601_07_58_SS_Duplicate_ALS					
RPD						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	
RPD		0	0	0	0	
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS					7.8
RPD						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF					
RPD						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF					
C02.03	SX_OB_20220602_15_51_SS_Duplicate_EUF					
RPD						
C02.03	SX_OB_20220602_15_50_SS_Primary_EUF					
C02.03	SX_OB_20220602_15_52_SS_Triplicate_ALS					
RPD						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					7.7
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS					7.8
RPD						1
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					7.7
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	
RPD						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					7.7
C02.03	SX_OB_20220602_09_13_SS_Triplicate_EUF					
RPD						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					
C02.03	SX_OB_20220602_09_13_SS_Duplicate_ALS					
RPD						
C02.03	SX_OB_20220602_09_12_SS_Primary_ALS					
C02.03	SX_OB_20220602_09_13_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 multipli**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.**

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C02.0320220614135152_01**	**This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01**

ATTACHMENT B: 95% UCL AVE CALCULATIONS

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.115/06/2022 1:48:01 PM
From File	WorkSheet_c.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	13	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	34	Mean	52.15
Maximum	96	Median	47
SD	16.5	Std. Error of Mean	4.577
Coefficient of Variation	0.316	Skewness	1.58

Normal GOF Test

Shapiro Wilk Test Statistic	0.86	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.185	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.234	Data appear Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	60.31	95% Adjusted-CLT UCL (Chen-1995)	61.83
		95% Modified-t UCL (Johnson-1978)	60.65

Gamma GOF Test

A-D Test Statistic	0.383	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.734	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.145	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.237	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	12.66	k star (bias corrected MLE)	9.787
Theta hat (MLE)	4.121	Theta star (bias corrected MLE)	5.329
nu hat (MLE)	329.1	nu star (bias corrected)	254.5
MLE Mean (bias corrected)	52.15	MLE Sd (bias corrected)	16.67
		Approximate Chi Square Value (0.05)	218.5
Adjusted Level of Significance	0.0301	Adjusted Chi Square Value	213.8

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	60.73	95% Adjusted Gamma UCL (use when n<50)	62.08

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.13	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.234	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

57												
58	**Lognormal Statistics**											
59						Minimum of Logged Data	3.526			Mean of logged Data		3.914
60						Maximum of Logged Data	4.564			SD of logged Data		0.286
61												
62	**Assuming Lognormal Distribution**											
63						95% H-UCL	61.08			90% Chebyshev (MVUE) UCL		64.55
64						95% Chebyshev (MVUE) UCL	70.22			97.5% Chebyshev (MVUE) UCL		78.09
65						99% Chebyshev (MVUE) UCL	93.55					
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	59.68			95% Jackknife UCL		60.31
72						95% Standard Bootstrap UCL	59.3			95% Bootstrap-t UCL		64.24
73						95% Hall's Bootstrap UCL	89.06			95% Percentile Bootstrap UCL		59.77
74						95% BCA Bootstrap UCL	61.08					
75						90% Chebyshev(Mean, Sd) UCL	65.88			95% Chebyshev(Mean, Sd) UCL		72.1
76						97.5% Chebyshev(Mean, Sd) UCL	80.74			99% Chebyshev(Mean, Sd) UCL		97.69
77												
78	**Suggested UCL to Use**											
79						95% Student's-t UCL	60.31					
80												
81	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
82	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
83												
84	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
85	Recommendations are based upon data size, data distribution, and skewness.											
86	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												
89												
90	**Nickel**											
91												
92	**General Statistics**											
93						Total Number of Observations	13			Number of Distinct Observations		13
94										Number of Missing Observations		0
95						Minimum	43			Mean		143.7
96						Maximum	240			Median		130
97						SD	61.36			Std. Error of Mean		17.02
98						Coefficient of Variation	0.427			Skewness		0.237
99												
100	**Normal GOF Test**											
101						Shapiro Wilk Test Statistic	0.953			**Shapiro Wilk GOF Test**		
102						5% Shapiro Wilk Critical Value	0.866			Data appear Normal at 5% Significance Level		
103						Lilliefors Test Statistic	0.136			**Lilliefors GOF Test**		
104						5% Lilliefors Critical Value	0.234			Data appear Normal at 5% Significance Level		
105	**Data appear Normal at 5% Significance Level**											
106												
107	**Assuming Normal Distribution**											
108	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
109						95% Student's-t UCL	174			95% Adjusted-CLT UCL (Chen-1995)		172.9
110										95% Modified-t UCL (Johnson-1978)		174.2
111												

112	**Gamma GOF Test**											
113	A-D Test Statistic				0.222	**Anderson-Darling Gamma GOF Test**						
114	5% A-D Critical Value				0.736	Detected data appear Gamma Distributed at 5% Significance Level						
115	K-S Test Statistic				0.114	**Kolmogorov-Smirnov Gamma GOF Test**						
116	5% K-S Critical Value				0.237	Detected data appear Gamma Distributed at 5% Significance Level						
117	**Detected data appear Gamma Distributed at 5% Significance Level**											
118												
119	**Gamma Statistics**											
120	k hat (MLE)				5.268	k star (bias corrected MLE)						4.104
121	Theta hat (MLE)				27.27	Theta star (bias corrected MLE)						35.01
122	nu hat (MLE)				137	nu star (bias corrected)						106.7
123	MLE Mean (bias corrected)				143.7	MLE Sd (bias corrected)						70.93
124						Approximate Chi Square Value (0.05)						83.86
125	Adjusted Level of Significance				0.0301	Adjusted Chi Square Value						80.98
126												
127	**Assuming Gamma Distribution**											
128	95% Approximate Gamma UCL (use when n>=50))				182.8	95% Adjusted Gamma UCL (use when n<50)						189.3
129												
130	**Lognormal GOF Test**											
131	Shapiro Wilk Test Statistic				0.94	**Shapiro Wilk Lognormal GOF Test**						
132	5% Shapiro Wilk Critical Value				0.866	Data appear Lognormal at 5% Significance Level						
133	Lilliefors Test Statistic				0.125	**Lilliefors Lognormal GOF Test**						
134	5% Lilliefors Critical Value				0.234	Data appear Lognormal at 5% Significance Level						
135	**Data appear Lognormal at 5% Significance Level**											
136												
137	**Lognormal Statistics**											
138	Minimum of Logged Data				3.761	Mean of logged Data						4.87
139	Maximum of Logged Data				5.481	SD of logged Data						0.487
140												
141	**Assuming Lognormal Distribution**											
142	95% H-UCL				196.9	90% Chebyshev (MVUE) UCL						205.5
143	95% Chebyshev (MVUE) UCL				232.7	97.5% Chebyshev (MVUE) UCL						270.6
144	99% Chebyshev (MVUE) UCL				345							
145												
146	**Nonparametric Distribution Free UCL Statistics**											
147	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
148												
149	**Nonparametric Distribution Free UCLs**											
150	95% CLT UCL				171.7	95% Jackknife UCL						174
151	95% Standard Bootstrap UCL				170.5	95% Bootstrap-t UCL						175.5
152	95% Hall's Bootstrap UCL				171.1	95% Percentile Bootstrap UCL						170.9
153	95% BCA Bootstrap UCL				168.8							
154	90% Chebyshev(Mean, Sd) UCL				194.7	95% Chebyshev(Mean, Sd) UCL						217.9
155	97.5% Chebyshev(Mean, Sd) UCL				250	99% Chebyshev(Mean, Sd) UCL						313
156												
157	**Suggested UCL to Use**											
158	95% Student's-t UCL				174							
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).											
163	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
164												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C02.0320220614135152_01**	**This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01**

ATTACHMENT C: LABORATORY CERTIFICATES

CHAIN OF CUSTODY RECORD

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

Company	AGON Environmental - Tunnel Spoil Testing	Project №	JC0927	Project Manager	Craig Trimbur
Address	Unit H70, 63-85 Turner St, Port Melbourne VIC 3207	Project Name	WGTP-Tunnel Ref: 20220603045244-Eurofin-56	EDD Format (ESdat, EQuIS etc)	Esdat
Contact Name	Craig Trimbur David Lawson			Sampler(s)	Will Dayle - EP Risk
Phone №	+61 400 828 907 (Craig) +61 490 411 004 (David)			Handed over by	DBARNETT
Special Directions	Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with oter sample recipt documentation.			Email for Invoice	finance@agonenviro.com.au LabReports.TST@agonenviro.com.au
Purchase Order				Email for Results	LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au
Quote ID №	Agon WGTP TST				

Required Turnaround Time (TAT) ♦Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ [illegible]
- ☐ Other( )

Analyses: Spoil Sample Preparation; Suite WGTP - TRH/ PAH/ Phenols/ OCP/ PCB/ VOC/ Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/ Cr6+/ CN/ Total Fluoride/ pH; PFAS Extended Suite - 0.1- 5ug/kg; ASLP PH 5 - PFAS 0.01-0.05 ug/l; ASLP Reagent - PFAS 0.01-0.05ug/l

Containers: 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

№	Client Sample ID	Sampled Date/Time	Matrix (Solid (S), Water (W))	Spoil Sample Preparation	Suite WGTP / Metals ... pH	PFAS Extended Suite - 0.1- 5ug/kg	ASLP PH 5 - PFAS 0.01-0.05 ug/l	ASLP Reagent - PFAS 0.01-0.05ug/l	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	SX_OB_20220602_09_13_SS_Triplicate_EUF	2/06/2022	S	X	X	X	X	X								1	
2	SX_IB_20220602_09_22_SS_Primary_EUF	2/06/2022	S	X	X	X	X	X								1	
3	SX_IB_20220602_12_00_SS_Primary_EUF	2/06/2022	[illegible]	X	X	X	X	X								1	
4	SX_OB_20220602_12_20_SS_Primary_EUF	2/06/2022	S	X	X	X	X	X								1	
5	SX_OB_20220602_15_50_SS_Primary_EUF	2/06/2022	S	X	X	X	X	X								1	
6	SX_OB_20220602_15_51_SS_Duplicate_EUF	2/06/2022	S	X	X	X	X	X								1	
7	SX_OB_20220602_19_56_SS_Primary_EUF	02/06/2022 19:56	S	X	X	X	X	X								1	
8	SX_OB_20220603_00_05_SS_Primary_EUF	03/06/2022 00:05	S	X	X	X	X	X								1	
9	SX_OB_20220603_03_59_SS_Primary_EUF	03/06/2022 03:59	S	X	X	X	X	X								1	
10	SX_IB_20220603_04_21_SR_Rinsate_EUF	03/06/2022 04:21	W			X										1	
11	SX_IB_20220603_04_21_SB_Blank_EUF	03/06/2022 04:21	W			X										1	
12																1	
13																1	
14																1	
15																1	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
	Total Counts			9	9	11	9	9								15	

Method of Shipment	☐ Courier (#) (circled) ☐ Hand Delivered ☐ Postal	Name		Signature		Date		Time
Laboratory Use Only	Received By: Tahsin	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature: T	Date: 3/6		Time: 12.15		Temperature: 10.9
	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date		Time		Report №

Chilled: Yes / No (No circled)
Temp: 11
-0.1
10.9

894364 Jake

eurofins | Environment Testing

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SA 5063

Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	Soil	M22-Jn0006482		X	X	X
2	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	Soil	M22-Jn0006483		X	X	X
3	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	Soil	M22-Jn0006484		X	X	X
4	SX_OB_20220602_12_20_S	Jun 02, 2022	12:20PM	Soil	M22-Jn0006485		X	X	X

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email: EnviroSales@eurofins.com

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NATA # 1261 Site # 25079

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IANZ # 1290

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Address: 3/224 Glen Osmond Road
Fullarton
SA 5063

Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
5	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	Soil	M22-Jn0006486		X	X	X
6	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	Soil	M22-Jn0006487		X	X	X
7	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	Soil	M22-Jn0006488		X	X	X

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	Soil	M22-Jn0006489		X	X	X
9	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	Soil	M22-Jn0006490		X	X	X
10	SX_IB_20220603_04_21_SR_Rinsate_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006491			X	
11	SX_IB_20220603_04_21_SB_Blank_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006492			X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
12	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - pH 5.0	M22-Jn0006493	X		X	
13	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - pH 5.0	M22-Jn0006494	X		X	
14	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - pH 5.0	M22-Jn0006495	X		X	
15	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - pH 5.0	M22-Jn0006496	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
16	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - pH 5.0	M22-Jn0006497	X		X	
17	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	AUS Leachate - pH 5.0	M22-Jn0006498	X		X	
18	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - pH 5.0	M22-Jn0006499	X		X	
19	SX_OB_20220603_00_05_S	Jun 03, 2022	12:05AM	AUS Leachate - pH 5.0	M22-Jn0006500	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
20	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - pH 5.0	M22-Jn0006501	X		X	
21	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - Reagent Water	M22-Jn0006502	X		X	
22	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - Reagent Water	M22-Jn0006503	X		X	
23	SX_IB_202206	Jun 02, 2022	12:00PM	AUS Leachate	M22-	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
23	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - Reagent Water	M22-Jn0006504				
24	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - Reagent Water	M22-Jn0006505	X		X	
25	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - Reagent Water	M22-Jn0006506	X		X	
26	SX_OB_20220602_15_51_SS_Duplicate_E	Jun 02, 2022	3:51PM	AUS Leachate - Reagent Water	M22-Jn0006507	X		X	

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Project ID: JC0927

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Received: Jun 3, 2022 12:15 PM
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Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
27	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - Reagent Water	M22-Jn0006508	X		X	
28	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	AUS Leachate - Reagent Water	M22-Jn0006509	X		X	
29	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - Reagent Water	M22-Jn0006510	X		X	
Test Counts						18	9	29	9

Agon Environmental Pty Ltd - VIC
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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: **Agon Lab Reports (Spoil Project)**

Report **894364-L**
Project name 20220603045244-Eurofin-56
Project ID JC0927
Received Date Jun 03, 2022

Client Sample ID			**SX_OB_20220602_09_13_SS_Triplicate_EUF**	**SX_IB_20220602_09_22_SS_Primary_EUF**	**SX_IB_20220602_12_00_SS_Primary_EUF**	**SX_OB_20220602_12_20_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-Jn0006493**	**M22-Jn0006494**	**M22-Jn0006495**	**M22-Jn0006496**
Date Sampled			**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**	**Jun 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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.2	5.3	4.8	4.9
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	82	82	84	80
13C5-PFPeA (surr.)	1	%	88	85	96	87
13C5-PFHxA (surr.)	1	%	119	111	123	115
13C4-PFHpA (surr.)	1	%	96	57	60	92
13C8-PFOA (surr.)	1	%	140	132	135	134
13C5-PFNA (surr.)	1	%	118	120	119	123
13C6-PFDA (surr.)	1	%	125	115	123	127
13C2-PFUnDA (surr.)	1	%	97	104	107	99
13C2-PFDoDA (surr.)	1	%	94	104	104	97
13C2-PFTeDA (surr.)	1	%	125	137	148	147

Client Sample ID			SX_OB_20220602_09_13_SS_Triplicate_EUF	SX_IB_20220602_09_22_SS_Primary_EUF	SX_IB_20220602_12_00_SS_Primary_EUF	SX_OB_20220602_12_20_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-Jn0006493**	**M22-Jn0006494**	**M22-Jn0006495**	**M22-Jn0006496**
Date Sampled			**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	133	141	144	137
D3-N-MeFOSA (surr.)	1	%	72	82	75	75
D5-N-EtFOSA (surr.)	1	%	78	92	82	84
D7-N-MeFOSE (surr.)	1	%	72	83	85	80
D9-N-EtFOSE (surr.)	1	%	67	78	81	77
D5-N-EtFOSAA (surr.)	1	%	76	76	79	150
D3-N-MeFOSAA (surr.)	1	%	102	115	121	105
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	94	92	95	98
18O2-PFHxS (surr.)	1	%	98	91	96	96
13C8-PFOS (surr.)	1	%	99	100	107	100
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	91	131	150	110
13C2-6:2 FTSA (surr.)	1	%	133	70	76	123
13C2-8:2 FTSA (surr.)	1	%	74	70	68	76
13C2-10:2 FTSA (surr.)	1	%	97	102	107	104
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_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_19_56_SS_Primary_EUF	SX_OB_20220603_00_05_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-Jn0006497**	**M22-Jn0006498**	**M22-Jn0006499**	**M22-Jn0006500**
Date Sampled			**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**	**Jun 03, 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	5.0	4.9	5.1	5.1
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	81	83	80	82
13C5-PFPeA (surr.)	1	%	92	97	81	94
13C5-PFHxA (surr.)	1	%	118	119	113	117
13C4-PFHpA (surr.)	1	%	97	101	93	93
13C8-PFOA (surr.)	1	%	131	135	129	127
13C5-PFNA (surr.)	1	%	128	126	117	118
13C6-PFDA (surr.)	1	%	120	120	114	125
13C2-PFUnDA (surr.)	1	%	91	97	79	93
13C2-PFDoDA (surr.)	1	%	94	93	74	88
13C2-PFTeDA (surr.)	1	%	132	117	84	130
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	%	129	134	121	126
D3-N-MeFOSA (surr.)	1	%	60	77	56	71
D5-N-EtFOSA (surr.)	1	%	67	82	58	77
D7-N-MeFOSE (surr.)	1	%	77	71	68	75
D9-N-EtFOSE (surr.)	1	%	66	71	58	70
D5-N-EtFOSAA (surr.)	1	%	146	142	116	137
D3-N-MeFOSAA (surr.)	1	%	99	100	85	103

Client Sample ID			SX_OB_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_19_56_SS_Primary_EUF	SX_OB_20220603_00_05_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-Jn0006497**	**M22-Jn0006498**	**M22-Jn0006499**	**M22-Jn0006500**
Date Sampled			**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**	**Jun 03, 2022**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	97	99	97	96
18O2-PFHxS (surr.)	1	%	95	101	97	96
13C8-PFOS (surr.)	1	%	99	103	95	94
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	85	90	70	81
13C2-6:2 FTSA (surr.)	1	%	109	115	121	114
13C2-8:2 FTSA (surr.)	1	%	75	97	71	70
13C2-10:2 FTSA (surr.)	1	%	97	98	68	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_20220603_03_59_SS_Primary_EUF	SX_OB_20220602_09_13_SS_Triplicate_EUF	SX_IB_20220602_09_22_SS_Primary_EUF	SX_IB_20220602_12_00_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - Reagent Water**	**AUS Leachate - Reagent Water**	**AUS Leachate - Reagent Water**
Eurofins Sample No.			**M22-Jn0006501**	**M22-Jn0006502**	**M22-Jn0006503**	**M22-Jn0006504**
Date Sampled			**Jun 03, 2022**	**Jun 02, 2022**	**Jun 02, 2022**	**Jun 02, 2022**
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	4.9	6.6	6.6	6.6
pH (off)	0.1	pH Units	5.1	7.1	8.5	8.7

Client Sample ID			SX_OB_20220603_03_59_SS_Primary_EUF	SX_OB_20220602_09_13_SS_Triplicate_EUF	SX_IB_20220602_09_22_SS_Primary_EUF	SX_IB_20220602_12_00_SS_Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Jn0006501	M22-Jn0006502	M22-Jn0006503	M22-Jn0006504
Date Sampled			Jun 03, 2022	Jun 02, 2022	Jun 02, 2022	Jun 02, 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	%	81	82	89	84
13C5-PFPeA (surr.)	1	%	95	96	97	107
13C5-PFHxA (surr.)	1	%	118	88	88	87
13C4-PFHpA (surr.)	1	%	94	87	62	60
13C8-PFOA (surr.)	1	%	128	104	101	97
13C5-PFNA (surr.)	1	%	120	96	105	103
13C6-PFDA (surr.)	1	%	118	119	127	122
13C2-PFUnDA (surr.)	1	%	93	94	128	118
13C2-PFDoDA (surr.)	1	%	93	91	125	129
13C2-PFTeDA (surr.)	1	%	147	76	118	125
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	%	133	86	100	95
D3-N-MeFOSA (surr.)	1	%	74	77	109	108
D5-N-EtFOSA (surr.)	1	%	82	75	112	113
D7-N-MeFOSE (surr.)	1	%	72	67	77	77
D9-N-EtFOSE (surr.)	1	%	71	63	75	79
D5-N-EtFOSAA (surr.)	1	%	145	98	137	135
D3-N-MeFOSAA (surr.)	1	%	103	83	123	123
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

Client Sample ID			SX_OB_20220603_03_59_SS_Primary_EUF	SX_OB_20220602_09_13_SS_Triplicate_EUF	SX_IB_20220602_09_22_SS_Primary_EUF	SX_IB_20220602_12_00_SS_Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Jn0006501	M22-Jn0006502	M22-Jn0006503	M22-Jn0006504
Date Sampled			Jun 03, 2022	Jun 02, 2022	Jun 02, 2022	Jun 02, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
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	%	95	100	93	91
18O2-PFHxS (surr.)	1	%	90	100	101	86
13C8-PFOS (surr.)	1	%	98	95	109	97
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	78	52	113	117
13C2-6:2 FTSA (surr.)	1	%	108	142	133	122
13C2-8:2 FTSA (surr.)	1	%	84	71	137	128
13C2-10:2 FTSA (surr.)	1	%	100	80	125	122
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_20220602_12_20_SS_Primary_EUF	SX_OB_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_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-Jn0006505	M22-Jn0006506	M22-Jn0006507	M22-Jn0006508
Date Sampled			Jun 02, 2022	Jun 02, 2022	Jun 02, 2022	Jun 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	6.6	6.6	6.6	6.6
pH (off)	0.1	pH Units	8.4	8.5	8.4	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

Client Sample ID			SX_OB_20220602_12_20_SS_Primary_EUF	SX_OB_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_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-Jn0006505	M22-Jn0006506	M22-Jn0006507	M22-Jn0006508
Date Sampled			Jun 02, 2022	Jun 02, 2022	Jun 02, 2022	Jun 02, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	83	86	83	83
13C5-PFPeA (surr.)	1	%	91	121	92	95
13C5-PFHxA (surr.)	1	%	97	93	88	90
13C4-PFHpA (surr.)	1	%	92	96	89	93
13C8-PFOA (surr.)	1	%	107	110	107	105
13C5-PFNA (surr.)	1	%	99	103	101	99
13C6-PFDA (surr.)	1	%	118	123	125	117
13C2-PFUnDA (surr.)	1	%	107	110	111	110
13C2-PFDoDA (surr.)	1	%	107	113	107	116
13C2-PFTeDA (surr.)	1	%	97	116	95	133
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	%	90	95	92	96
D3-N-MeFOSA (surr.)	1	%	85	98	94	97
D5-N-EtFOSA (surr.)	1	%	82	100	95	101
D7-N-MeFOSE (surr.)	1	%	71	74	71	75
D9-N-EtFOSE (surr.)	1	%	69	74	72	75
D5-N-EtFOSAA (surr.)	1	%	115	108	116	115
D3-N-MeFOSAA (surr.)	1	%	104	90	92	89
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	99	100	100	100
18O2-PFHxS (surr.)	1	%	99	105	99	99
13C8-PFOS (surr.)	1	%	97	95	99	93

Client Sample ID			SX_OB_20220602_12_20_SS_Primary_EUF	SX_OB_20220602_15_50_SS_Primary_EUF	SX_OB_20220602_15_51_SS_Duplicate_EUF	SX_OB_20220602_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-Jn0006505	M22-Jn0006506	M22-Jn0006507	M22-Jn0006508
Date Sampled			Jun 02, 2022	Jun 02, 2022	Jun 02, 2022	Jun 02, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	66	53	52	53
13C2-6:2 FTSA (surr.)	1	%	142	154	146	178
13C2-8:2 FTSA (surr.)	1	%	68	41	74	42
13C2-10:2 FTSA (surr.)	1	%	96	86	96	104
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_20220603_00_05_SS_Primary_EUF	SX_OB_20220603_03_59_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Jn0006509	M22-Jn0006510
Date Sampled			Jun 03, 2022	Jun 03, 2022
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid[C01]		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	6.6	6.6
pH (off)	0.1	pH Units	8.6	8.7
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	%	86	82

Client Sample ID			SX_OB_20220603_00_05_SS_Primary_EUF	SX_OB_20220603_03_59_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Jn0006509	M22-Jn0006510
Date Sampled			Jun 03, 2022	Jun 03, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C5-PFPeA (surr.)	1	%	104	99
13C5-PFHxA (surr.)	1	%	95	89
13C4-PFHpA (surr.)	1	%	95	91
13C8-PFOA (surr.)	1	%	110	107
13C5-PFNA (surr.)	1	%	108	100
13C6-PFDA (surr.)	1	%	121	121
13C2-PFUnDA (surr.)	1	%	114	110
13C2-PFDoDA (surr.)	1	%	111	109
13C2-PFTeDA (surr.)	1	%	120	104
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	%	92	91
D3-N-MeFOSA (surr.)	1	%	102	99
D5-N-EtFOSA (surr.)	1	%	98	98
D7-N-MeFOSE (surr.)	1	%	76	71
D9-N-EtFOSE (surr.)	1	%	76	69
D5-N-EtFOSAA (surr.)	1	%	118	115
D3-N-MeFOSAA (surr.)	1	%	91	91
Perfluoroalkyl sulfonic acids (PFSAs)				
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	102	102
18O2-PFHxS (surr.)	1	%	101	95
13C8-PFOS (surr.)	1	%	96	97

Client Sample ID			SX_OB_20220603_00_05_SS_Primary_EUF	SX_OB_20220603_03_59_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-Jn0006509	M22-Jn0006510
Date Sampled			Jun 03, 2022	Jun 03, 2022
Test/Reference	LOR	Unit		
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	54	53
13C2-6:2 FTSA (surr.)	1	%	136	138
13C2-8:2 FTSA (surr.)	1	%	72	74
13C2-10:2 FTSA (surr.)	1	%	103	103
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)	Melbourne	Jun 03, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (Leachate fluid)	Melbourne	Jun 03, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (off)	Melbourne	Jun 03, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Jun 03, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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Company Name: Agon Environmental Pty Ltd - VIC
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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	Soil	M22-Jn0006482		X	X	X
2	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	Soil	M22-Jn0006483		X	X	X
3	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	Soil	M22-Jn0006484		X	X	X
4	SX_OB_20220602_12_20_S	Jun 02, 2022	12:20PM	Soil	M22-Jn0006485		X	X	X

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Project ID: JC0927

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Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
5	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	Soil	M22-Jn0006486		X	X	X
6	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	Soil	M22-Jn0006487		X	X	X
7	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	Soil	M22-Jn0006488		X	X	X

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Company Name: Agon Environmental Pty Ltd - VIC
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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	Soil	M22-Jn0006489		X	X	X
9	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	Soil	M22-Jn0006490		X	X	X
10	SX_IB_20220603_04_21_SR_Rinsate_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006491			X	
11	SX_IB_20220603_04_21_SB_Blank_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006492			X	

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
12	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - pH 5.0	M22-Jn0006493	X		X	
13	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - pH 5.0	M22-Jn0006494	X		X	
14	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - pH 5.0	M22-Jn0006495	X		X	
15	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - pH 5.0	M22-Jn0006496	X		X	

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
16	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - pH 5.0	M22-Jn0006497	X		X	
17	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	AUS Leachate - pH 5.0	M22-Jn0006498	X		X	
18	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - pH 5.0	M22-Jn0006499	X		X	
19	SX_OB_20220603_00_05_S	Jun 03, 2022	12:05AM	AUS Leachate - pH 5.0	M22-Jn0006500	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
20	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - pH 5.0	M22-Jn0006501	X		X	
21	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - Reagent Water	M22-Jn0006502	X		X	
22	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - Reagent Water	M22-Jn0006503	X		X	
23	SX_IB_202206	Jun 02, 2022	12:00PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
23	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - Reagent Water	M22-Jn0006504				
24	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - Reagent Water	M22-Jn0006505	X		X	
25	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - Reagent Water	M22-Jn0006506	X		X	
26	SX_OB_20220602_15_51_SS_Duplicate_E	Jun 02, 2022	3:51PM	AUS Leachate - Reagent Water	M22-Jn0006507	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
27	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - Reagent Water	M22-Jn0006508	X		X	
28	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	AUS Leachate - Reagent Water	M22-Jn0006509	X		X	
29	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - Reagent Water	M22-Jn0006510	X		X	
Test Counts						18	9	29	9

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

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QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	127			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	98			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	86			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	82			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	82			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	80			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	88			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	96			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	97			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	114			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	87			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	86			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	101			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	100			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	103			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	100			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	98			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	78			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	92			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	89			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	93			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	100			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	92			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	68			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	100			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	136			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	88			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0006495	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-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0006495	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0006495	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0006504	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0006504	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0006504	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:

Callum McEwan	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Sample Properties

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Agon Environmental Pty Ltd - VIC
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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 **894364-W**
Project name 20220603045244-Eurofin-56
Project ID JC0927
Received Date Jun 03, 2022

Client Sample ID			**SX_IB_20220603_04_21_SR_Rinsate_EUF**	**SX_IB_20220603_04_21_SB_Blank_EUF**
Sample Matrix			**Water**	**Water**
Eurofins Sample No.			**M22-Jn0006491**	**M22-Jn0006492**
Date Sampled			**Jun 03, 2022**	**Jun 03, 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	%	76	76
13C5-PFPeA (surr.)	1	%	94	92
13C5-PFHxA (surr.)	1	%	93	94
13C4-PFHpA (surr.)	1	%	99	98
13C8-PFOA (surr.)	1	%	134	129
13C5-PFNA (surr.)	1	%	123	126
13C6-PFDA (surr.)	1	%	112	109
13C2-PFUnDA (surr.)	1	%	101	105
13C2-PFDoDA (surr.)	1	%	90	85
13C2-PFTeDA (surr.)	1	%	84	78
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	%	116	112

Client Sample ID			SX_IB_20220603_04_21_SR_Rinsate_EUF	SX_IB_20220603_04_21_SB_Blank_EUF
Sample Matrix			**Water**	**Water**
Eurofins Sample No.			**M22-Jn0006491**	**M22-Jn0006492**
Date Sampled			**Jun 03, 2022**	**Jun 03, 2022**
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	64	59
D5-N-EtFOSA (surr.)	1	%	71	65
D7-N-MeFOSE (surr.)	1	%	74	76
D9-N-EtFOSE (surr.)	1	%	77	75
D5-N-EtFOSAA (surr.)	1	%	133	132
D3-N-MeFOSAA (surr.)	1	%	101	92
Perfluoroalkyl sulfonic acids (PFSAs)				
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	95	97
18O2-PFHxS (surr.)	1	%	107	105
13C8-PFOS (surr.)	1	%	101	102
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	37	36
13C2-6:2 FTSA (surr.)	1	%	46	33
13C2-8:2 FTSA (surr.)	1	%	65	59
13C2-10:2 FTSA (surr.)	1	%	129	122
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	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Jun 03, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Jun 03, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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

Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	Soil	M22-Jn0006482		X	X	X
2	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	Soil	M22-Jn0006483		X	X	X
3	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	Soil	M22-Jn0006484		X	X	X
4	SX_OB_20220602_12_20_S	Jun 02, 2022	12:20PM	Soil	M22-Jn0006485		X	X	X

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
5	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	Soil	M22-Jn0006486		X	X	X
6	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	Soil	M22-Jn0006487		X	X	X
7	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	Soil	M22-Jn0006488		X	X	X

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 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 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
8	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	Soil	M22-Jn0006489		X	X	X
9	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	Soil	M22-Jn0006490		X	X	X
10	SX_IB_20220603_04_21_SR_Rinsate_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006491			X	
11	SX_IB_20220603_04_21_SB_Blank_EUF	Jun 03, 2022	4:21AM	Water	M22-Jn0006492			X	

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Project Name: 20220603045244-Eurofin-56
Project ID: JC0927

Order No.:
Report #: 894364
Phone: 08 8338 1009
Fax:

Received: Jun 3, 2022 12:15 PM
Due: Jun 10, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

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Sydney Laboratory - NATA # 1261 Site # 18217									
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Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
12	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - pH 5.0	M22-Jn0006493	X		X	
13	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - pH 5.0	M22-Jn0006494	X		X	
14	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - pH 5.0	M22-Jn0006495	X		X	
15	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - pH 5.0	M22-Jn0006496	X		X	

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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									
16	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - pH 5.0	M22-Jn0006497	X		X	
17	SX_OB_20220602_15_51_SS_Duplicate_EUF	Jun 02, 2022	3:51PM	AUS Leachate - pH 5.0	M22-Jn0006498	X		X	
18	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - pH 5.0	M22-Jn0006499	X		X	
19	SX_OB_20220603_00_05_S	Jun 03, 2022	12:05AM	AUS Leachate - pH 5.0	M22-Jn0006500	X		X	

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	S_Primary_EUF								
20	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - pH 5.0	M22-Jn0006501	X		X	
21	SX_OB_20220602_09_13_SS_Triplicate_EUF	Jun 02, 2022	9:13AM	AUS Leachate - Reagent Water	M22-Jn0006502	X		X	
22	SX_IB_20220602_09_22_SS_Primary_EUF	Jun 02, 2022	9:22AM	AUS Leachate - Reagent Water	M22-Jn0006503	X		X	
23	SX_IB_202206	Jun 02, 2022	12:00PM	AUS Leachate	M22-	X		X	

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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									
23	SX_IB_20220602_12_00_SS_Primary_EUF	Jun 02, 2022	12:00PM	AUS Leachate - Reagent Water	M22-Jn0006504				
24	SX_OB_20220602_12_20_SS_Primary_EUF	Jun 02, 2022	12:20PM	AUS Leachate - Reagent Water	M22-Jn0006505	X		X	
25	SX_OB_20220602_15_50_SS_Primary_EUF	Jun 02, 2022	3:50PM	AUS Leachate - Reagent Water	M22-Jn0006506	X		X	
26	SX_OB_20220602_15_51_SS_Duplicate_E	Jun 02, 2022	3:51PM	AUS Leachate - Reagent Water	M22-Jn0006507	X		X	

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Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	UF								
27	SX_OB_20220602_19_56_SS_Primary_EUF	Jun 02, 2022	7:56PM	AUS Leachate - Reagent Water	M22-Jn0006508	X		X	
28	SX_OB_20220603_00_05_SS_Primary_EUF	Jun 03, 2022	12:05AM	AUS Leachate - Reagent Water	M22-Jn0006509	X		X	
29	SX_OB_20220603_03_59_SS_Primary_EUF	Jun 03, 2022	3:59AM	AUS Leachate - Reagent Water	M22-Jn0006510	X		X	
Test Counts						18	9	29	9

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

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QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	97			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	84			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	82			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	84			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	82			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	89			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	101			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	96			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	97			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	88			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	113			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	117			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	100			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	109			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	89			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	109			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	74			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	88			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	84			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	82			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	89			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	108			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	94			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	68			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	96			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	100			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-Jn0000445	NCP	ug/L	0.01	0.02	20	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Jn0000445	NCP	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-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Jn0000445	NCP	ug/L	0.03	0.03	10	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Jn0000445	NCP	ug/L	0.09	0.06	51	30%	Fail	Q15
Perfluorodecanesulfonic acid (PFDS)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Jn0000445	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Jn0000445	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Jn0000445	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).
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Callum McEwan	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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

CHAIN OF CUSTODY DOCUMENTATION

Australian Laboratory Services Pty Ltd

CLIENT: Agon Evironmental
ADDRESS / OFFICE: Melbourne
PROJECT MANAGER (PM): Craig Trimbur
PROJECT ID: JC0927
SITE: 20220602045551-ALS-12 P.O. NO.:
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP

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

[redacted]

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		Spoil Sample Prep	P16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite								Notes:
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles													
12/1	SX_IB_20220601_07_57_SS_Primary_ALS	S	1/06/2022	07:57	BUCKET	1	X	X	X	X	X								
13/2	SX_IB_20220601_07_58_SS_Duplicate_ALS	S	1/06/2022	07:58	BUCKET	1	X	X	X	X	X								
14/3	SX_OB_20220601_08_05_SS_Primary_ALS	S	1/06/2022	08:05	BUCKET	1	X	X	X	X	X								
4	SX_OB_20220601_12_54_SR_Rinsate_ALS	S	1/06/2022	12:54	BOTTLE	1			X										
5	SX_OB_20220601_12_55_SB_Blank_ALS	S	1/06/2022	12:55	BOTTLE	1			X										
15/6	SX_IB_20220601_13_19_SS_Primary_ALS	S	1/06/2022	13:19	BUCKET	1	X	X	X	X	X								
16/7	SX_IB_20220601_15_43_SS_Primary_ALS	S	1/06/2022	15:43	BUCKET	1	X	X	X	X	X								
17/8	SX_IB_20220601_15_50_SS_Triplicate_ALS	S	1/06/2022	15:50	BUCKET	1	X	X	X	X	X								
18/9	SX_IB_20220601_19_59_SS_Primary_ALS	S	1/06/2022	19:59	BUCKET	1	X	X	X	X	X								
19/10	SX_IB_20220602_00_01_SS_Primary_ALS	S	2/06/2022	00:01	BUCKET	1	X	X	X	X	X								
20/11	SX_IB_20220602_04_06_SS_Primary_ALS	S	2/06/2022	04:06	BUCKET	1	X	X	X	X	X								

Environmental Division
Melbourne
Work Order Reference
EM2210378

Telephone : + 61-3-8549 9600

RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name:	Date:	Name: [illegible]	Date: 2/6	Con' Note No:
Of:	Time:	Of: [illegible]	Time: 11-40	
Name:	Date:	Name:	Date:	Transport Co:
Of:	Time:	Of:	Time:	

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

AUSTRALIAN LABORATORY SERVICES P/L

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM2210378**	Page	: 1 of 29
Client	: **AGON ENVIRONMENTAL PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 02-Jun-2022 11:40
Order number	: ----	Date Analysis Commenced	: 02-Jun-2022
C-O-C number	: 20220602045551-ALS-12	Issue Date	: 09-Jun-2022 18:22
Sampler	: Dayle B - EP Risk, Toby - Agon		
Site	: 20220602045551-ALS-12		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

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

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

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

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

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

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

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

- EG048G: EM2210349 #50 poor matrix spike recovery for hexavalent chromium due to matrix effects. Confirmed by re-analysis.
- EP231X: Poor matrix spike recovery for sample EM2210037-002 due to sample matrix interference.
- EG048G: EM2210378 #1, 2, 6, 7, 9, 10 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.
- EG005-T : EM2210337 #17 Poor duplicate precision for total Zinc due to sample matrix. Confirmed by re-digestion and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.

Analytical Results

Sub-Matrix: **ASLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.9**	**98.5**	**87.7**	**93.7**	**96.4**
13C8-PFOA	----	0.02	%		**105**	**85.3**	**98.1**	**97.2**	**97.6**

Analytical Results

Sub-Matrix: **ASLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	----
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	----
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	--------
					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	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: **ASLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	----
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	----
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	--------
					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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
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	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.3**	**103**	**87.0**	**88.7**	----
13C8-PFOA	----	0.02	%		**91.9**	**91.8**	**88.8**	**101**	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-012	EM2210378-013	EM2210378-014	EM2210378-015	EM2210378-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: DI WATER LEACHATE (Matrix: WATER)				Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
Compound	CAS Number	LOR	Unit		EM2210378-012	EM2210378-013	EM2210378-014	EM2210378-015	EM2210378-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**105**	**95.4**	**105**	**105**
13C8-PFOA	----	0.02	%		**93.4**	**102**	**99.0**	**94.9**	**98.6**

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	----
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	----
					EM2210378-017	EM2210378-018	EM2210378-019	EM2210378-020	--------
					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	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	----
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	----
					EM2210378-017	EM2210378-018	EM2210378-019	EM2210378-020	--------
					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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
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	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.4**	**107**	**103**	**106**	----
13C8-PFOA	----	0.02	%		**93.5**	**99.2**	**95.3**	**95.9**	----

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		7.8	7.7	7.8	7.7	7.9
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		16.2	29.0	25.4	27.2	25.1
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		31	34	54	36	29
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg		88	100	70	119	113
Copper	7440-50-8	5	mg/kg		55	52	43	66	63
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		146	157	101	195	182
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		91	95	62	112	100
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		1.2	1.2	<1.0	1.9	1.4
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg		<5	<5	<5	<5	<5
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg		170	180	190	190	180
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		9.1	9.2	8.6	8.9	8.9
After HCl pH	----	0.1	pH Unit		1.5	1.4	1.4	1.4	1.4
Extraction Fluid pH	----	0.1	pH Unit		5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit		5.1	5.1	5.1	5.1	5.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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	<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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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	72-54-8/72-55-9/50-2	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

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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	<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
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

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
					EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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_20220601_07_57_SS_Primary_ALS	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 07:57	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43
Compound	CAS Number	LOR	Unit		EM2210378-001	EM2210378-002	EM2210378-003	EM2210378-006	EM2210378-007
					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	%		112	106	122	118	121
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		98.4	95.7	89.4	92.4	90.0
Toluene-D8	2037-26-5	0.1	%		90.7	83.1	79.9	80.8	78.8
4-Bromofluorobenzene	460-00-4	0.1	%		110	105	96.6	104	96.9
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		94.4	96.3	110	107	107
2-Chlorophenol-D4	93951-73-6	0.025	%		89.0	93.8	108	104	105
2.4.6-Tribromophenol	118-79-6	0.025	%		94.5	95.8	101	104	104
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		96.4	91.5	102	102	105
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		95.4	85.2	98.8	104	100
2-Fluorobiphenyl	321-60-8	0.025	%		97.7	91.9	108	95.4	106
Anthracene-d10	1719-06-8	0.025	%		102	101	110	109	110
4-Terphenyl-d14	1718-51-0	0.025	%		91.6	90.5	102	99.4	101
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		92.3	120	110	110	95.2
13C8-PFOA	----	0.0002	%		97.0	103	112	108	110

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		7.8	7.8	7.9	8.6	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		24.1	26.0	28.0	28.2	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		23	20	26	23	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	----
Chromium	7440-47-3	5	mg/kg		99	100	99	96	----
Copper	7440-50-8	5	mg/kg		59	58	57	55	----
Lead	7439-92-1	5	mg/kg		<5	<5	<5	<5	----
Molybdenum	7439-98-7	5	mg/kg		<5	<5	<5	<5	----
Nickel	7440-02-0	5	mg/kg		171	175	166	164	----
Selenium	7782-49-2	5	mg/kg		<5	<5	<5	<5	----
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	----
Tin	7440-31-5	10	mg/kg		<10	<10	<10	<10	----
Zinc	7440-66-6	5	mg/kg		88	83	87	85	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	----
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	1.0	mg/kg		<1.0	1.5	1.1	<1.0	----
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg		<5	<5	<5	<5	----
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg		170	180	160	160	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		9.0	8.9	8.9	9.8	----
After HCl pH	----	0.1	pH Unit		1.4	1.3	1.3	1.3	----
Extraction Fluid pH	----	0.1	pH Unit		5.0	5.0	5.0	5.0	----
Final pH	----	0.1	pH Unit		5.1	5.1	5.1	5.5	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit		----	----	----	----	9.9
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	----
EP074A: Monocyclic Aromatic Hydrocarbons									

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Styrene	100-42-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ **Sum of monocyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		<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	----
1.1-Dichloroethene	75-35-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Methylene chloride	75-09-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
cis-1.2-Dichloroethene	156-59-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.1-Trichloroethane	71-55-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2-Dichloroethane	107-06-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.2-Trichloroethane	79-00-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.1.2-Tetrachloroethane	630-20-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.2.2-Tetrachloroethane	79-34-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Chlorobenzene	108-90-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.4-Dichlorobenzene	106-46-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2-Dichlorobenzene	95-50-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2.4-Trichlorobenzene	120-82-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
^ **Sum of volatile chlorinated hydrocarbons**	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
^ **Sum of other chlorinated hydrocarbons**	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
EP075A: Phenolic Compounds (Halogenated)									

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					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	----
2.4-Dichlorophenol	120-83-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
2.6-Dichlorophenol	87-65-0	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.4.5-Trichlorophenol	95-95-4	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.4.6-Trichlorophenol	88-06-2	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Pentachlorophenol	87-86-5	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	----
^ **Sum of Phenols (halogenated)**	----	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg		<1	<1	<1	<1	----
2-Methylphenol	95-48-7	1	mg/kg		<1	<1	<1	<1	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	----
2-Nitrophenol	88-75-5	1	mg/kg		<1	<1	<1	<1	----
2.4-Dimethylphenol	105-67-9	1	mg/kg		<1	<1	<1	<1	----
2.4-Dinitrophenol	51-28-5	5	mg/kg		<5	<5	<5	<5	----
4-Nitrophenol	100-02-7	5	mg/kg		<5	<5	<5	<5	----
2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg		<5	<5	<5	<5	----
Dinoseb	88-85-7	20	mg/kg		<20	<20	<20	<20	----
2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	20	mg/kg		<20	<20	<20	<20	----
^ **Sum of Phenols (non-halogenated)**	----	20	mg/kg		<20	<20	<20	<20	----
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					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	<1.0	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**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**	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
cis-Chlordane	5103-71-9	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
trans-Chlordane	5103-74-2	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
Endosulfan 1	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endosulfan 2	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDT	50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Methoxychlor	72-43-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg		<0.30	<0.30	<0.30	<0.30	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
Compound	CAS Number	LOR	Unit		EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
^ Chlordane	57-74-9	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
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	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					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	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg		<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg		<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg		<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg		<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	----
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	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_IB_20220601_15_50_SS_Triplicate_ALS	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	SX_IB_20220601_07_57_SS_Primary_ALS
				Sampling date / time	01-Jun-2022 15:50	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	01-Jun-2022 07:57
					EM2210378-008	EM2210378-009	EM2210378-010	EM2210378-011	EM2210378-012
					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	<10.0	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg		<50.0	<50.0	<50.0	<50.0	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**121**	**113**	**112**	**114**	----
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**67.5**	**94.8**	**89.3**	**90.8**	----
Toluene-D8	2037-26-5	0.1	%		**59.7**	**84.1**	**81.9**	**78.8**	----
4-Bromofluorobenzene	460-00-4	0.1	%		**72.8**	**104**	**96.4**	**95.7**	----
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		**97.5**	**93.2**	**97.5**	**108**	----
2-Chlorophenol-D4	93951-73-6	0.025	%		**96.2**	**92.1**	**91.8**	**102**	----
2.4.6-Tribromophenol	118-79-6	0.025	%		**104**	**100**	**90.7**	**100**	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		**106**	**103**	**98.8**	**107**	----
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		**101**	**101**	**92.1**	**102**	----
2-Fluorobiphenyl	321-60-8	0.025	%		**108**	**104**	**98.2**	**109**	----
Anthracene-d10	1719-06-8	0.025	%		**110**	**107**	**97.9**	**108**	----
4-Terphenyl-d14	1718-51-0	0.025	%		**100**	**96.8**	**100**	**112**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**91.6**	**118**	**92.8**	**104**	----
13C8-PFOA	----	0.0002	%		**103**	**109**	**106**	**104**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_IB_20220601_07_58_SS_Duplicate_ALS	SX_OB_20220601_08_05_SS_Primary_ALS	SX_IB_20220601_13_19_SS_Primary_ALS	SX_IB_20220601_15_43_SS_Primary_ALS	SX_IB_20220601_15_50_SS_Triplicate_ALS
			Sampling date / time	01-Jun-2022 07:58	01-Jun-2022 08:05	01-Jun-2022 13:19	01-Jun-2022 15:43	01-Jun-2022 15:50
Compound	CAS Number	LOR	Unit	EM2210378-013	EM2210378-014	EM2210378-015	EM2210378-016	EM2210378-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**10.1**	**9.7**	**9.6**	**9.9**	**9.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_IB_20220601_19_59_SS_Primary_ALS	SX_IB_20220602_00_01_SS_Primary_ALS	SX_IB_20220602_04_06_SS_Primary_ALS	----	----
			Sampling date / time	01-Jun-2022 19:59	02-Jun-2022 00:01	02-Jun-2022 04:06	----	----
Compound	CAS Number	LOR	Unit	EM2210378-018	EM2210378-019	EM2210378-020	--------	--------
				Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**9.9**	**9.9**	**11.3**	**----**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220601_12_54_SR_Rinsate_ALS	SX_OB_20220601_12_55_SB_Blank_ALS	----	----	----
				Sampling date / time	01-Jun-2022 12:54	01-Jun-2022 12:55	----	----	----
Compound	CAS Number	LOR	Unit		EM2210378-004	EM2210378-005	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L		<0.10	<0.10	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220601_12_54_SR_Rinsate_ALS	SX_OB_20220601_12_55_SB_Blank_ALS	----	----	----
				Sampling date / time	01-Jun-2022 12:54	01-Jun-2022 12:55	----	----	----
Compound	CAS Number	LOR	Unit		EM2210378-004	EM2210378-005	--------	--------	--------
					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	%		**96.4**	**104**	----	----	----
13C8-PFOA	----	0.02	%		**101**	**98.0**	----	----	----

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	: **EM2210378**	Page	: 1 of 28
Client	: **AGON ENVIRONMENTAL PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 02-Jun-2022
Order number	: ----	Date Analysis Commenced	: 02-Jun-2022
C-O-C number	: 20220602045551-ALS-12	Issue Date	: 09-Jun-2022
Sampler	: Dayle B - EP Risk, Toby - Agon		
Site	: 20220602045551-ALS-12		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
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: 4378725)									
EM2210337-017	Anonymous	EG005T: Zinc	7440-66-6	5	mg/kg	167	# 278	50.1	0% - 20%
EM2210144-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	38	38	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	31	32	4.2	0% - 50%
		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	29	30	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	25	26	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	70	70	0.0	0% - 50%
EM2210337-017	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	48	40	18.8	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	95	107	12.4	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	7	40.7	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	33	36	7.5	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	37	46	20.7	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
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4382699)									
EM2210265-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.9	8.0	0.0	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 (%)*
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4382699) - continued									
EM2210265-016	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.8	1.3	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4382701)									
EM2210378-003	SX_OB_20220601_08_05_SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.9	1.5	0% - 20%
EM2210438-066	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	5.4	5.3	1.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4378831)									
EM2210358-001	Anonymous	EA055: Moisture Content	----	0.1	%	25.8	23.0	11.3	0% - 20%
EM2210378-007	SX_IB_20220601_15_43_SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	25.1	26.4	5.1	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4378724)									
EM2210144-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210337-017	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.4	0.6	38.2	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4378685)									
EM2210349-048	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2210378-008	SX_IB_20220601_15_50_SS_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	1.8	58.2	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4384045)									
EM2210328-004	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	1	2	0.0	No Limit
EM2210231-003	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4378690)									
EM2210103-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	220	210	4.7	No Limit
EM2210122-002	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	210	150	28.8	No Limit
EK040T: Fluoride Total (QC Lot: 4378691)									
EM2210378-006	SX_IB_20220601_13_19_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	190	170	8.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4378677)									
EM2209694-006	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210378-001	SX_IB_20220601_07_57_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: 4377094)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074H: Naphthalene (QC Lot: 4377094)									

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: 4377094) - continued									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4377094)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4378675)									
EM2209694-006	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EM2210378-001	SX_IB_20220601_07_57_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

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: 4378675) - continued									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	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
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4378675)									
EM2209694-006	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
EM2210378-001	SX_IB_20220601_07_57_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: 4378675)									
EM2209694-006	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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

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: 4378675) - continued									
EM2209694-006	Anonymous	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
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 4378675)									
EM2209694-006	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit

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: 4378675) - continued									
EM2209694-006	Anonymous	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
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4377094)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4378676)									
EM2209694-006	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	110	<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	110	<50	75.0	No Limit
EM2210378-001	SX_IB_20220601_07_57_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: 4377094)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	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: 4377094) - continued									
EM2210378-001	SX_IB_20220601_07_57_S S_Primary_ALS	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: 4378676)									
EM2209694-006	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	140	<100	31.4	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	140	<50	94.7	No Limit
EM2210378-001	SX_IB_20220601_07_57_S S_Primary_ALS	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4378704)									
EM2210037-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2210037-018	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	0.0007	0.0006	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4378704)									
EM2210037-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EM2210037-018	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

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: 4378704) - continued									
EM2210037-018	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4378704)									
EM2210037-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2210037-018	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4378704)									
EM2210037-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

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: 4378704) - continued									
EM2210037-001	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
EM2210037-018	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4378704)									
EM2210037-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
EM2210037-018	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0007	0.0006	15.4	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0007	0.0006	15.4	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0007	0.0006	15.4	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: 4379236)									
EM2209989-004	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4385499)									
EM2210378-001	SX_IB_20220601_07_57_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

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: 4385499) - continued									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	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: 4385500)									
EM2210378-012	SX_IB_20220601_07_57_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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4379236)									
EM2209989-004	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4385499)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4385500)									

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: 4385500) - continued									
EM2210378-012	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4379236)									
EM2209989-004	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4385499)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit

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: 4385499) - continued									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4385500)									
EM2210378-012	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4379236)									
EM2209989-004	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4385499)									
EM2210378-001	SX_IB_20220601_07_57_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: 4385500)									
EM2210378-012	SX_IB_20220601_07_57_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

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: 4385500) - continued									
EM2210378-012	SX_IB_20220601_07_57_SS_Primary_ALS	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: 4379236)									
EM2209989-004	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
EP231P: PFAS Sums (QC Lot: 4385499)									
EM2210378-001	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4385500)									
EM2210378-012	SX_IB_20220601_07_57_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4378725)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	85.9	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	55.0	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	90.8	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	89.4	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	80.3	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	94.3	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	86.8	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	71.4	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	91.3	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	125	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4380691)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4382699)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	99.5	98.8	101
				----	7 pH Unit	100	99.3	101
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4382701)								
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: 4378724)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	88.3	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4378685)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	81.9	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4384045)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	86.2	70.0	130
EK040T: Fluoride Total (QCLot: 4378690)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	82.9	75.2	110
EK040T: Fluoride Total (QCLot: 4378691)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	88.0	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4378677)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	98.7	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4377094)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	84.1	69.2	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4377094) - continued								
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	82.9	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	79.6	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	78.8	65.2	112
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	84.3	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	81.8	68.4	110
EP074H: Naphthalene (QCLot: 4377094)								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	88.2	72.3	114
EP074I: Volatile Halogenated Compounds (QCLot: 4377094)								
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	86.9	47.0	138
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	80.5	57.6	125
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	85.4	72.3	115
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	81.2	60.5	122
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	83.4	70.3	112
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	86.8	66.6	115
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	81.2	64.4	122
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	77.2	58.4	127
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	102	72.9	114
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	84.4	64.7	115
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	94.6	72.6	116
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	76.8	60.0	119
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	82.6	71.8	116
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	92.5	66.1	116
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	103	39.8	128
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	85.0	70.3	113
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	85.6	62.6	113
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	88.2	70.8	110
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	90.5	48.4	120
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4378675)								
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	88.9	74.5	126
EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	82.7	72.7	126
EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	80.6	73.5	132
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	77.2	72.8	128
EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	75.0	73.3	134
EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	75.2	72.4	128
EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	84.8	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	94.4	71.9	128

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4378675) - continued								
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	81.7	54.4	135
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4378675)								
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	86.7	71.5	130
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	89.0	73.4	129
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	90.1	74.3	129
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	78.8	70.9	133
EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	82.6	71.8	132
EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	85.8	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	84.8	65.3	134
EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	77.8	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	81.8	62.0	128
EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	70.4	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4378675)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	84.6	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	85.9	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	84.2	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	87.7	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	87.5	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	88.0	78.4	127
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	85.0	75.3	132
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	85.2	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	88.1	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	90.7	75.0	133
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	90.2	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	90.5	65.1	130
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	90.2	72.1	134
EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	89.5	72.9	135
EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	89.1	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4378675)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	87.7	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	86.0	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	88.0	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	87.8	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	89.1	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	83.7	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	87.0	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	86.3	73.6	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075I: Organochlorine Pesticides (QCLot: 4378675) - continued								
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	82.4	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	82.5	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	85.2	69.4	134
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	85.3	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	85.7	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	80.1	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	111	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	87.4	71.4	135
EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	87.0	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	86.3	70.2	135
EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	85.6	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	88.0	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4377094)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	77.7	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4378676)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	84.7	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	103	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	96.9	81.8	121
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	98.6	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4377094)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	76.2	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: 4378676)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	95.3	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	105	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	85.7	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	102	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4378704)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	97.1	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	99.8	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	83.3	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	91.9	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	95.1	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4378704)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.6	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	69.0	132

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4378704) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.4	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	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	96.3	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.9	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.2	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	114	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4378704)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.5	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.5	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.1	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4378704)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	97.5	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	114	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	115	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	73.4	70.0	130
EP231P: PFAS Sums (QCLot: 4378704)								
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 (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379236)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	96.4	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	98.6	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	92.4	68.0	131

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379236) - continued								
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	102	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	98.6	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	101	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385499)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	109	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	92.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	102	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	97.3	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	107	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	105	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385500)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	105	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	102	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	100	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	96.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.1	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	100	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379236)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	105	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	101	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	97.8	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	95.8	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	98.5	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	96.6	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	96.3	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	95.3	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	96.5	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	89.2	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385499)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	88.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	99.9	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.2	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385499) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	84.5	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: 4385500)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.9	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.1	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	96.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	110	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379236)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	96.8	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	108	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	97.5	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	93.8	70.0	130
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	98.5	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	116	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	94.3	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385499)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.1	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	99.2	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.5	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	96.9	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385499) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	91.3	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385500)								
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	110	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	100.0	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	109	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: 4379236)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	97.2	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	101	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	93.5	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	86.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385499)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	105	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	109	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	100	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	73.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385500)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	109	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	110	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	115	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	93.0	70.0	130
EP231P: PFAS Sums (QCLot: 4379236)								
EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 4385499)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 4385499) - continued								
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 4385500)								
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	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4378725)							
EM2210144-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	85.4	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.9	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	89.2	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.4	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	92.7	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	89.3	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	88.7	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4378724)							
EM2210144-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	96.9	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4378685)							
EM2210349-050	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 3.1	58.0	114
EM2210349-050	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 17.9	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4384045)							
EM2210231-004	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	95.8	70.0	130
EK040T: Fluoride Total (QCLot: 4378690)							
EM2210103-002	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	70.7	70.0	130
EK040T: Fluoride Total (QCLot: 4378691)							
EM2210378-007	SX_IB_20220601_15_43_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	70.1	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4378677)							
EM2210037-004	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	97.5	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4377094)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4377094) - continued							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	70.5	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	72.2	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4377094)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP074-UT: 1.1-Dichloroethene	75-35-4	2 mg/kg	71.8	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	64.1	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	66.0	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4378675)							
EM2209694-007	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	102	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	94.2	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	95.4	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4378675)							
EM2209694-007	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	105	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	100	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4378675)							
EM2209694-007	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	108	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	101	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4377094)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	67.0	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4378676)							
EM2209694-008	Anonymous	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	86.9	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	103	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	96.9	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	99.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4377094)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	64.1	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4378676)							
EM2209694-008	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	96.9	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	105	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	75.1	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	99.7	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4378704)							
EM2210037-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	105	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	98.9	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	109	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	112	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	109	68.0	136

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4378704) - continued							
EM2210037-002	Anonymous	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	# 24.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4378704)							
EM2210037-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	93.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	95.7	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	108	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	96.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.7	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	108	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.5	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	94.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	111	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	132	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	104	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4378704)							
EM2210037-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	88.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.9	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	108	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	110	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	99.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	89.3	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	133	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4378704)							
EM2210037-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	89.9	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	# 22.8	70.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379236)							
EM2209989-005	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	102	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	109	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	105	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: 4379236) - continued							
EM2209989-005	Anonymous	EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	113	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	99.1	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385499)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	108	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	105	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	107	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	96.7	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	96.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385500)							
EM2210378-013	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	117	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	93.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	103	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	101	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	88.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379236)							
EM2209989-005	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	107	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	102	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	96.9	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	101	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	104	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	101	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	112	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	102	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	96.4	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	112	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385499)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	103	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	94.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	100	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	101	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	103	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	99.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.0	69.0	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: 4385499) - continued							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	94.5	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	108	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385500)							
EM2210378-013	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	103	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	108	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	116	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	111	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.7	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	106	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	101	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	83.1	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379236)							
EM2209989-005	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	104	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	109	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	109	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	103	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	106	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	116	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	106	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385499)							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	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	97.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	112	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	94.6	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	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: 4385499) - continued							
EM2210378-002	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	113	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: 4385500)							
EM2210378-013	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	106	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	112	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	109	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	110	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	107	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	119	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4379236)							
EM2209989-005	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	104	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	105	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	107	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	90.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385499)							
EM2210378-002	SX_IB_20220601_07_58_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	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	112	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	73.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385500)							
EM2210378-013	SX_IB_20220601_07_58_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	106	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	127	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	79.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2210378**	Page	: 1 of 14
Client	: **AGON ENVIRONMENTAL PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 02-Jun-2022
Site	: 20220602045551-ALS-12	Issue Date	: 09-Jun-2022
Sampler	: Dayle B - EP Risk, Toby - Agon	No. of samples received	: 20
Order number	: ----	No. of samples analysed	: 20

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	EM2210337--017	Anonymous	**Zinc**	7440-66-6	50.1 %	0% - 20%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							
EG048: Hexavalent Chromium (Alkaline Digest)	EM2210349--050	Anonymous	**Hexavalent Chromium**	18540-29-9	3.1 %	58.0-114%	**Recovery less than lower data quality objective**
EG048: Hexavalent Chromium (Alkaline Digest)	EM2210349--050	Anonymous	**Hexavalent Chromium**	18540-29-9	17.9 %	58.0-114%	**Recovery less than lower data quality objective**
EP231A: Perfluoroalkyl Sulfonic Acids	EM2210037--002	Anonymous	**Perfluorodecane sulfonic acid (PFDS)**	335-77-3	24.0 %	59.0-134%	**Recovery less than lower data quality objective**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2210037--002	Anonymous	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	22.8 %	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_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**01-Jun-2022**	**07-Jun-2022**	08-Jun-2022	✓	**07-Jun-2022**	07-Jun-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS								
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	09-Jun-2022	✓	**07-Jun-2022**	07-Jun-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**01-Jun-2022**	**----**	----	----	**03-Jun-2022**	15-Jun-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS								
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**----**	----	----	**03-Jun-2022**	16-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
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**06-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	28-Nov-2022	✓
Soil Glass Jar - Unpreserved (EG005T)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**06-Jun-2022**	29-Jun-2022	✓	**07-Jun-2022**	29-Jun-2022	✓
Soil Glass Jar - Unpreserved (EG035T)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**06-Jun-2022**	30-Jun-2022	✓	**07-Jun-2022**	30-Jun-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved (EG048G)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	29-Jun-2022	✓	**04-Jun-2022**	10-Jun-2022	✓
Soil Glass Jar - Unpreserved (EG048G)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	30-Jun-2022	✓	**04-Jun-2022**	10-Jun-2022	✓
EK026SF: Total CN by Segmented Flow Analyser							
Soil Glass Jar - Unpreserved (EK026SF)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**07-Jun-2022**	15-Jun-2022	✓	**08-Jun-2022**	21-Jun-2022	✓
Soil Glass Jar - Unpreserved (EK026SF)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**08-Jun-2022**	21-Jun-2022	✓
EK040T: Fluoride Total							
Soil Glass Jar - Unpreserved (EK040T)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	29-Jun-2022	✓	**07-Jun-2022**	29-Jun-2022	✓
Soil Glass Jar - Unpreserved (EK040T)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	30-Jun-2022	✓	**07-Jun-2022**	30-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
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**04-Jun-2022**	28-Nov-2022	✓	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**04-Jun-2022**	29-Nov-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_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**04-Jun-2022**	28-Nov-2022	✓	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**04-Jun-2022**	29-Nov-2022	✓	**----**	----	----
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**02-Jun-2022**	08-Jun-2022	✓	**03-Jun-2022**	08-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**02-Jun-2022**	09-Jun-2022	✓	**03-Jun-2022**	09-Jun-2022	✓
EP074H: Naphthalene							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**02-Jun-2022**	08-Jun-2022	✓	**03-Jun-2022**	08-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**02-Jun-2022**	09-Jun-2022	✓	**03-Jun-2022**	09-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
EP074I: Volatile Halogenated Compounds							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**02-Jun-2022**	08-Jun-2022	✓	**03-Jun-2022**	08-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**02-Jun-2022**	09-Jun-2022	✓	**03-Jun-2022**	09-Jun-2022	✓
EP075A: Phenolic Compounds (Halogenated)							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP075I: Organochlorine Pesticides							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**02-Jun-2022**	08-Jun-2022	✓	**03-Jun-2022**	08-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**02-Jun-2022**	09-Jun-2022	✓	**03-Jun-2022**	09-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**02-Jun-2022**	08-Jun-2022	✓	**03-Jun-2022**	08-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	15-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**02-Jun-2022**	09-Jun-2022	✓	**03-Jun-2022**	09-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	16-Jun-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X)							
SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) SX_IB_20220601_07_57_SS_Primary_ALS, SX_IB_20220601_07_58_SS_Duplicate_ALS, SX_OB_20220601_08_05_SS_Primary_ALS, SX_IB_20220601_13_19_SS_Primary_ALS, SX_IB_20220601_15_43_SS_Primary_ALS, SX_IB_20220601_15_50_SS_Triplicate_ALS, SX_IB_20220601_19_59_SS_Primary_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) SX_IB_20220602_00_01_SS_Primary_ALS, SX_IB_20220602_04_06_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	13-Jul-2022	✓

Matrix: **WATER**

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

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

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220601_12_54_SR_Rinsate_ALS,	SX_OB_20220601_12_55_SB_Blank_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**03-Jun-2022**	28-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**04-Jun-2022**	**08-Jun-2022**	01-Dec-2022	✓	**08-Jun-2022**	01-Dec-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS,	SX_IB_20220602_00_01_SS_Primary_ALS,							
SX_IB_20220602_04_06_SS_Primary_ALS,	SX_IB_20220601_07_57_SS_Primary_ALS,							
SX_IB_20220601_07_58_SS_Duplicate_ALS,	SX_OB_20220601_08_05_SS_Primary_ALS,							
SX_IB_20220601_13_19_SS_Primary_ALS,	SX_IB_20220601_15_43_SS_Primary_ALS,							
SX_IB_20220601_15_50_SS_Triplicate_ALS,	SX_IB_20220601_19_59_SS_Primary_ALS,							
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220601_12_54_SR_Rinsate_ALS,	SX_OB_20220601_12_55_SB_Blank_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**03-Jun-2022**	28-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**04-Jun-2022**	**08-Jun-2022**	01-Dec-2022	✓	**08-Jun-2022**	01-Dec-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS,	SX_IB_20220602_00_01_SS_Primary_ALS,							
SX_IB_20220602_04_06_SS_Primary_ALS,	SX_IB_20220601_07_57_SS_Primary_ALS,							
SX_IB_20220601_07_58_SS_Duplicate_ALS,	SX_OB_20220601_08_05_SS_Primary_ALS,							
SX_IB_20220601_13_19_SS_Primary_ALS,	SX_IB_20220601_15_43_SS_Primary_ALS,							
SX_IB_20220601_15_50_SS_Triplicate_ALS,	SX_IB_20220601_19_59_SS_Primary_ALS,							
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS							
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220601_12_54_SR_Rinsate_ALS,	SX_OB_20220601_12_55_SB_Blank_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**03-Jun-2022**	28-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**04-Jun-2022**	**08-Jun-2022**	01-Dec-2022	✓	**08-Jun-2022**	01-Dec-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS,	SX_IB_20220602_00_01_SS_Primary_ALS,							
SX_IB_20220602_04_06_SS_Primary_ALS,	SX_IB_20220601_07_57_SS_Primary_ALS,							
SX_IB_20220601_07_58_SS_Duplicate_ALS,	SX_OB_20220601_08_05_SS_Primary_ALS,							
SX_IB_20220601_13_19_SS_Primary_ALS,	SX_IB_20220601_15_43_SS_Primary_ALS,							
SX_IB_20220601_15_50_SS_Triplicate_ALS,	SX_IB_20220601_19_59_SS_Primary_ALS,							
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS							

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220601_12_54_SR_Rinsate_ALS,	SX_OB_20220601_12_55_SB_Blank_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**03-Jun-2022**	28-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**04-Jun-2022**	**08-Jun-2022**	01-Dec-2022	✓	**08-Jun-2022**	01-Dec-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS,	SX_IB_20220602_00_01_SS_Primary_ALS,							
SX_IB_20220602_04_06_SS_Primary_ALS,	SX_IB_20220601_07_57_SS_Primary_ALS,							
SX_IB_20220601_07_58_SS_Duplicate_ALS,	SX_OB_20220601_08_05_SS_Primary_ALS,							
SX_IB_20220601_13_19_SS_Primary_ALS,	SX_IB_20220601_15_43_SS_Primary_ALS,							
SX_IB_20220601_15_50_SS_Triplicate_ALS,	SX_IB_20220601_19_59_SS_Primary_ALS,							
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220601_12_54_SR_Rinsate_ALS,	SX_OB_20220601_12_55_SB_Blank_ALS	**01-Jun-2022**	**03-Jun-2022**	28-Nov-2022	✓	**03-Jun-2022**	28-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220601_07_57_SS_Primary_ALS,	SX_IB_20220601_07_58_SS_Duplicate_ALS,	**04-Jun-2022**	**08-Jun-2022**	01-Dec-2022	✓	**08-Jun-2022**	01-Dec-2022	✓
SX_OB_20220601_08_05_SS_Primary_ALS,	SX_IB_20220601_13_19_SS_Primary_ALS,							
SX_IB_20220601_15_43_SS_Primary_ALS,	SX_IB_20220601_15_50_SS_Triplicate_ALS,							
SX_IB_20220601_19_59_SS_Primary_ALS,	SX_IB_20220602_00_01_SS_Primary_ALS,							
SX_IB_20220602_04_06_SS_Primary_ALS,	SX_IB_20220601_07_57_SS_Primary_ALS,							
SX_IB_20220601_07_58_SS_Duplicate_ALS,	SX_OB_20220601_08_05_SS_Primary_ALS,							
SX_IB_20220601_13_19_SS_Primary_ALS,	SX_IB_20220601_15_43_SS_Primary_ALS,							
SX_IB_20220601_15_50_SS_Triplicate_ALS,	SX_IB_20220601_19_59_SS_Primary_ALS,							
SX_IB_20220602_00_01_SS_Primary_ALS,	SX_IB_20220602_04_06_SS_Primary_ALS							

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	13	**15.38**	**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	4	40	**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	3	26	**11.54**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	20	**15.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	13	**15.38**	**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	4	40	**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	2	26	**7.69**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-Dla-P	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	13	**7.69**	**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	2	26	**7.69**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	13	**15.38**	**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	2	26	**7.69**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**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	18	**11.11**	**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	18	**11.11**	**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	18	**11.11**	**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 CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071-EM	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).

Analytical Methods	Method	Matrix	Method Descriptions
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
SVOC - Waste Classification (Sums)	EP075-EM-SUM	SOIL	Summations for EP075 (EM variation)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
Total Fluoride	EK040T-PR	SOIL	In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux.
ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel	EN60a-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates.
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils - Ultra-trace.	ORG16-UT	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids - VIC EPA Screen	ORG17-EM	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

Preparation Methods	Method	Matrix	Method Descriptions
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.

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

CHAIN OF CUSTODY DOCUMENTATION

Australian Laboratory Services Pty Ltd

CLIENT: Agon Evironmental
ADDRESS / OFFICE: Melbourne
PROJECT MANAGER (PM): Craig Trimbur
PROJECT ID: JC0927
SITE: 20220603043514-ALS-56 P.O. NO.:
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP

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

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

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

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	Notes:
1	SX_OB_20220602_09_12_SS_Primary_ALS	S	2/06/2022	09:12	Bucket	1	X	X	X	X	X	
2	SX_OB_20220602_09_13_SS_Duplicate_ALS	S	2/06/2022	09:13	Bucket	1	X	X	X	X	X	
3	SX_IB_20220602_12_01_SS_Primary_ALS	S	2/06/2022	12:01	Bucket	1	X	X	X	X	X	
4	SX_OB_20220602_12_19_SS_Primary_ALS	S	2/06/2022	12:19	Bucket	1	X	X	X	X	X	
5	SX_OB_20220602_15_52_SS_Triplicate_ALS	S	2/06/2022	15:52	Bucket	1	X	X	X	X	X	
6	SX_OB_20220602_15_58_SS_Primary_ALS	S	2/06/2022	15:58	Bucket	1	X	X	X	X	X	
7	SX_OB_20220602_20_03_SS_Primary_ALS	S	2/06/2022	20:03	Bucket	1	X	X	X	X	X	
8	SX_IB_20220603_00_09_SS_Primary_ALS	S	3/06/2022	00:09	Bucket	1	X	X	X	X	X	
9	SX_OB_20220603_04_05_SS_Primary_ALS	S	3/06/2022	04:05	Bucket	1	X	X	X	X	X	
10	SX_OB_20220603_04_16_SR_Rinsate_ALS	W	3/06/2022	04:16	Bottle	1			X			
11	SX_OB_20220603_04_16_SB_Blank_ALS	W	3/06/2022	04:16	Bottle	1			X			

Environmental Division
Melbourne
Work Order Reference
EM2210521

Telephone : + 61-3-8549 9600

RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name: DAYLE BARNETT	Date: 03/06/22	Name:	Date: 3/6	Con' Note No:
Of: EP RISK	Time: AM	Of:	Time: 10 LV	
Name:	Date:	Name:	Date:	Transport Co:
Of:	Time:	Of:	Time:	

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

AUSTRALIAN LABORATORY SERVICES P/L

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM2210521**	Page	: 1 of 29
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	: 03-Jun-2022 10:15
Order number	: ----	Date Analysis Commenced	: 03-Jun-2022
C-O-C number	: 20220603043514-ALS-56	Issue Date	: 10-Jun-2022 18:00
Sampler	: DB - EP Risk		
Site	: 20220603043514-ALS-56		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

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

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

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

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

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

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

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- 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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **ASLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**102**	**94.0**	**108**	**106**
13C8-PFOA	----	0.02	%		**101**	**104**	**103**	**108**	**104**

Analytical Results

Sub-Matrix: **ASLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	----
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	----
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	--------
					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	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)				Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	----
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	----
Compound	CAS Number	LOR	Unit		EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	--------
					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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
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	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**84.9**	**82.6**	**87.1**	**96.4**	----
13C8-PFOA	----	0.02	%		**98.3**	**98.5**	**97.4**	**105**	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-012	EM2210521-013	EM2210521-014	EM2210521-015	EM2210521-016
					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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-012	EM2210521-013	EM2210521-014	EM2210521-015	EM2210521-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**88.7**	**101**	**68.7**	**70.8**	**70.2**
13C8-PFOA	----	0.02	%		**96.2**	**94.8**	**72.5**	**71.5**	**76.8**

Analytical Results

Sub-Matrix: DI WATER LEACHATE (Matrix: WATER)				Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	----
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	----
Compound	CAS Number	LOR	Unit		EM2210521-017	EM2210521-018	EM2210521-019	EM2210521-020	--------
					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	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: DI WATER LEACHATE (Matrix: WATER)				Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	----
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	----
Compound	CAS Number	LOR	Unit		EM2210521-017	EM2210521-018	EM2210521-019	EM2210521-020	--------
					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	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
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	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.7**	**102**	**92.0**	**128**	----
13C8-PFOA	----	0.02	%		**96.3**	**96.0**	**93.3**	**94.0**	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		**7.7**	**7.8**	**7.8**	**7.6**	**7.8**
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**29.3**	**29.1**	**29.1**	**25.8**	**29.6**
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**59**	**46**	**50**	**34**	**35**
Cadmium	7440-43-9	1	mg/kg		<1	<1	**1**	<1	<1
Chromium	7440-47-3	5	mg/kg		**78**	**98**	**122**	**94**	**87**
Copper	7440-50-8	5	mg/kg		**44**	**48**	**69**	**40**	**64**
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		**114**	**116**	**163**	**98**	**148**
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		**61**	**70**	**97**	**56**	**87**
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**	**230**	**230**	**180**	**210**
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		**8.7**	**8.6**	**9.4**	**8.6**	**9.0**
After HCl pH	----	0.1	pH Unit		**1.6**	**1.6**	**1.6**	**1.5**	**1.6**
Extraction Fluid pH	----	0.1	pH Unit		**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
Final pH	----	0.1	pH Unit		**5.2**	**5.1**	**5.2**	**5.0**	**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**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of monocyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.1-Dichloroethene	75-35-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.2-Dichloroethene	156-60-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
cis-1.2-Dichloroethene	156-59-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.1.1-Trichloroethane	71-55-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.2-Dichloroethane	107-06-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.1.2-Trichloroethane	79-00-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.1.1.2-Tetrachloroethane	630-20-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.1.2.2-Tetrachloroethane	79-34-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.4-Dichlorobenzene	106-46-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.2-Dichlorobenzene	95-50-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
1.2.4-Trichlorobenzene	120-82-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
^ **Sum of volatile chlorinated hydrocarbons**	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
^ **Sum of other chlorinated hydrocarbons**	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP075A: Phenolic Compounds (Halogenated)									

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued									
2-Chlorophenol	95-57-8	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
2.4-Dichlorophenol	120-83-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
2.6-Dichlorophenol	87-65-0	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
2.4.5-Trichlorophenol	95-95-4	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
2.4.6-Trichlorophenol	88-06-2	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	<0.03
2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
^ **Sum of Phenols (halogenated)**	----	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg		<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg		<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg		<1	<1	<1	<1	<1
2.4-Dimethylphenol	105-67-9	1	mg/kg		<1	<1	<1	<1	<1
2.4-Dinitrophenol	51-28-5	5	mg/kg		<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg		<5	<5	<5	<5	<5
2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg		<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg		<20	<20	<20	<20	<20
2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	20	mg/kg		<20	<20	<20	<20	<20
^ **Sum of Phenols (non-halogenated)**	----	20	mg/kg		<20	<20	<20	<20	<20
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Sum of organochlorine pesticides**	----	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.30	mg/kg		<0.30	<0.30	<0.30	<0.30	<0.30
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Chlordane**	57-74-9	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
^ **Sum of other organochlorine pesticides**	----	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	<0.03
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	mg/kg		<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C6 - C10 Fraction	C6_C10	20	mg/kg		<20	<20	<20	<20	<20
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg		<20	<20	<20	<20	<20
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg		<5	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	<10.0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	<10.0
EP231D: (n:2) Fluorotelomer Sulfonic Acids									

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_09_12_SS_Primary_ALS	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-001	EM2210521-002	EM2210521-003	EM2210521-004	EM2210521-005
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	<10.0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg		<50.0	<50.0	<50.0	<50.0	<50.0
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Sum of PFAS (WA DER List)	----	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	<10.0
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**98.9**	**93.9**	**87.9**	**86.6**	**90.9**
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**104**	**111**	**97.8**	**94.0**	**102**
Toluene-D8	2037-26-5	0.1	%		**82.9**	**87.9**	**77.5**	**75.3**	**82.6**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.4**	**103**	**89.8**	**88.2**	**89.8**
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		**93.1**	**88.5**	**82.8**	**81.7**	**84.4**
2-Chlorophenol-D4	93951-73-6	0.025	%		**108**	**103**	**96.7**	**95.0**	**98.8**
2.4.6-Tribromophenol	118-79-6	0.025	%		**91.0**	**86.3**	**79.2**	**79.8**	**82.2**
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		**92.2**	**86.4**	**83.6**	**79.3**	**83.5**
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		**90.9**	**86.4**	**81.1**	**79.7**	**82.8**
2-Fluorobiphenyl	321-60-8	0.025	%		**97.8**	**93.1**	**86.8**	**86.6**	**88.6**
Anthracene-d10	1719-06-8	0.025	%		**96.8**	**92.1**	**85.8**	**85.4**	**87.7**
4-Terphenyl-d14	1718-51-0	0.025	%		**100**	**95.9**	**88.6**	**88.1**	**91.0**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**95.2**	**109**	**81.2**	**100.0**	**105**
13C8-PFOA	----	0.0002	%		**97.1**	**97.4**	**98.2**	**99.3**	**98.0**

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		7.6	7.9	8.1	7.9	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		26.4	28.1	30.7	31.3	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		53	59	15	24	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	----
Chromium	7440-47-3	5	mg/kg		81	77	106	106	----
Copper	7440-50-8	5	mg/kg		32	26	50	60	----
Lead	7439-92-1	5	mg/kg		6	6	<5	<5	----
Molybdenum	7439-98-7	5	mg/kg		<5	<5	<5	<5	----
Nickel	7440-02-0	5	mg/kg		78	43	148	159	----
Selenium	7782-49-2	5	mg/kg		<5	<5	<5	<5	----
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	----
Tin	7440-31-5	10	mg/kg		<10	<10	<10	<10	----
Zinc	7440-66-6	5	mg/kg		43	28	77	95	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<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	----
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg		<5	<5	<5	<5	----
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg		210	190	250	200	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		8.4	8.5	9.4	8.8	----
After HCl pH	----	0.1	pH Unit		1.5	1.5	1.7	1.7	----
Extraction Fluid pH	----	0.1	pH Unit		5.0	5.0	5.0	5.0	----
Final pH	----	0.1	pH Unit		5.1	5.1	5.1	5.1	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit		----	----	----	----	7.3
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	----
EP074A: Monocyclic Aromatic Hydrocarbons									

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Styrene	100-42-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		<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	----
1.1-Dichloroethene	75-35-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Methylene chloride	75-09-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
cis-1.2-Dichloroethene	156-59-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.1-Trichloroethane	71-55-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2-Dichloroethane	107-06-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.2-Trichloroethane	79-00-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.1.2-Tetrachloroethane	630-20-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.1.2.2-Tetrachloroethane	79-34-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Chlorobenzene	108-90-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.4-Dichlorobenzene	106-46-7	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2-Dichlorobenzene	95-50-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
1.2.4-Trichlorobenzene	120-82-1	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
EP075A: Phenolic Compounds (Halogenated)									

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					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	----
2.4-Dichlorophenol	120-83-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
2.6-Dichlorophenol	87-65-0	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.4.5-Trichlorophenol	95-95-4	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.4.6-Trichlorophenol	88-06-2	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Pentachlorophenol	87-86-5	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	----
^ **Sum of Phenols (halogenated)**	----	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	----
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg		<1	<1	<1	<1	----
2-Methylphenol	95-48-7	1	mg/kg		<1	<1	<1	<1	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	----
2-Nitrophenol	88-75-5	1	mg/kg		<1	<1	<1	<1	----
2.4-Dimethylphenol	105-67-9	1	mg/kg		<1	<1	<1	<1	----
2.4-Dinitrophenol	51-28-5	5	mg/kg		<5	<5	<5	<5	----
4-Nitrophenol	100-02-7	5	mg/kg		<5	<5	<5	<5	----
2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg		<5	<5	<5	<5	----
Dinoseb	88-85-7	20	mg/kg		<20	<20	<20	<20	----
2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	20	mg/kg		<20	<20	<20	<20	----
^ **Sum of Phenols (non-halogenated)**	----	20	mg/kg		<20	<20	<20	<20	----
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					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	<1.0	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**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**	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
cis-Chlordane	5103-71-9	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
trans-Chlordane	5103-74-2	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
Endosulfan 1	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endosulfan 2	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
4.4`-DDT	50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
Methoxychlor	72-43-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
^ **Sum of organochlorine pesticides**	----	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.30	mg/kg		<0.30	<0.30	<0.30	<0.30	----

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
^ **Chlordane**	57-74-9	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
^ **Sum of other organochlorine pesticides**	----	0.03	mg/kg		<0.03	<0.03	<0.03	<0.03	----
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	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					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	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg		<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg		<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg		<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg		<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	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg		<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	----
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	----

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220602_15_58_SS_Primary_ALS	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	SX_OB_20220602_09_12_SS_Primary_ALS
				Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
					EM2210521-006	EM2210521-007	EM2210521-008	EM2210521-009	EM2210521-012
					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	<10.0	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg		<50.0	<50.0	<50.0	<50.0	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg		<10.0	<10.0	<10.0	<10.0	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**92.4**	**95.3**	**89.7**	**98.2**	----
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**102**	**88.3**	**120**	**91.1**	----
Toluene-D8	2037-26-5	0.1	%		**84.1**	**69.3**	**95.7**	**72.7**	----
4-Bromofluorobenzene	460-00-4	0.1	%		**94.5**	**80.3**	**109**	**83.6**	----
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		**89.2**	**87.9**	**87.1**	**86.4**	----
2-Chlorophenol-D4	93951-73-6	0.025	%		**104**	**102**	**100**	**100**	----
2.4.6-Tribromophenol	118-79-6	0.025	%		**85.0**	**83.8**	**84.3**	**85.2**	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		**88.1**	**85.4**	**86.7**	**85.2**	----
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		**87.2**	**85.7**	**83.4**	**84.6**	----
2-Fluorobiphenyl	321-60-8	0.025	%		**93.8**	**91.7**	**89.5**	**90.5**	----
Anthracene-d10	1719-06-8	0.025	%		**92.4**	**90.7**	**89.2**	**90.2**	----
4-Terphenyl-d14	1718-51-0	0.025	%		**96.0**	**94.2**	**92.0**	**96.9**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**103**	**109**	**112**	**104**	----
13C8-PFOA	----	0.0002	%		**101**	**99.4**	**98.4**	**103**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_OB_20220602_09_13_SS_Duplicate_ALS	SX_IB_20220602_12_01_SS_Primary_ALS	SX_OB_20220602_12_19_SS_Primary_ALS	SX_OB_20220602_15_52_SS_Triplicate_ALS	SX_OB_20220602_15_58_SS_Primary_ALS
			Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12
Compound	CAS Number	LOR	Unit	EM2210521-013	EM2210521-014	EM2210521-015	EM2210521-016	EM2210521-017
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**9.3**	**10.0**	**9.1**	**9.3**	**9.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_OB_20220602_20_03_SS_Primary_ALS	SX_IB_20220603_00_09_SS_Primary_ALS	SX_OB_20220603_04_05_SS_Primary_ALS	----	----
			Sampling date / time	02-Jun-2022 09:12	02-Jun-2022 09:12	02-Jun-2022 09:12	----	----
Compound	CAS Number	LOR	Unit	EM2210521-018	EM2210521-019	EM2210521-020	--------	--------
				Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**9.2**	**10.1**	**9.7**	**----**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220603_04_16_SR_Rinsate_ALS	SX_OB_20220603_04_16_SB_Blank_ALS	----	----	----
				Sampling date / time	02-Jun-2022 04:16	02-Jun-2022 04:16	----	----	----
Compound	CAS Number	LOR	Unit		EM2210521-010	EM2210521-011	--------	--------	--------
					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	0.10	µg/L		<0.10	<0.10	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220603_04_16_SR_Rinsate_ALS	SX_OB_20220603_04_16_SB_Blank_ALS	----	----	----
				Sampling date / time	02-Jun-2022 04:16	02-Jun-2022 04:16	----	----	----
Compound	CAS Number	LOR	Unit		EM2210521-010	EM2210521-011	--------	--------	--------
					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	0.05	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	%		**94.6**	**97.4**	----	----	----
13C8-PFOA	----	0.02	%		**94.6**	**106**	----	----	----

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	: **EM2210521**	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	: 03-Jun-2022
Order number	: ----	Date Analysis Commenced	: 03-Jun-2022
C-O-C number	: 20220603043514-ALS-56	Issue Date	: 10-Jun-2022
Sampler	: DB - EP Risk		
Site	: 20220603043514-ALS-56		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 20		
No. of samples analysed	: 20		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

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

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

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

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4383491)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	78	81	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	114	134	16.6	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	59	42	33.1	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	44	47	8.6	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	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	61	70	14.3	0% - 50%
EM2210563-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	36	35	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	28	34	18.8	0% - 50%
		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	14	12	15.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	11	11	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	28	28	0.0	No Limit
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4385416)									

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: 4385416) - continued									
EM2210397-010	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.7	4.8	0.0	0% - 20%
EM2210521-009	SX_OB_20220603_04_05_SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.9	7.8	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4384422)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	29.3	27.7	5.7	0% - 20%
EM2210580-002	Anonymous	EA055: Moisture Content	----	0.1	%	37.6	34.1	9.7	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4383492)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210563-001	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: 4383816)									
EM2210215-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2210392-030	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4383817)									
EM2210521-009	SX_OB_20220603_04_05_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2210606-027	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4387353)									
EM2210392-009	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2210215-001	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: 4387356)									
EM2210521-007	SX_OB_20220602_20_03_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2210606-028	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4383812)									
EM2210215-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	460	460	0.0	0% - 50%
EM2210392-037	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	250	250	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4383263)									
EM2210521-001	SX_OB_20220602_09_12_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: 4379803)									
EM2210521-001	SX_OB_20220602_09_12_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

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: 4379803) - continued									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074H: Naphthalene (QC Lot: 4379803)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4379803)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4383265)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.50	<0.50	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<1.00	<1.00	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4383265)									

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: 4383265) - continued									
EM2210521-001	SX_OB_20220602_09_12_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: 4383265)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 4383265)									
EM2210521-001	SX_OB_20220602_09_12_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: 4383265) - continued									
EM2210521-001	SX_OB_20220602_09_12_ 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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4379803)									
EM2210521-001	SX_OB_20220602_09_12_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4383264)									
EM2210521-001	SX_OB_20220602_09_12_ 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: 4379803)									
EM2210521-001	SX_OB_20220602_09_12_ 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: 4383264)									
EM2210521-001	SX_OB_20220602_09_12_ 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: 4379813)									
EM2210215-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2210313-006	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

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: 4379813) - continued									
EM2210313-006	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4385505)									
EM2209584-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0012	0.0013	11.0	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	0.0162	0.0164	1.2	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
EM2210580-002	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: 4379813)									
EM2210215-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EM2210313-006	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

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: 4385505)									
EM2209584-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0006	0.0005	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0006	0.0007	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	0.0003	0.0004	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
EM2210580-002	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: 4379813)									
EM2210215-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2210313-006	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

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: 4379813) - continued									
EM2210313-006	Anonymous	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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4385505)									
EM2209584-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2210580-002	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: 4379813)									
EM2210215-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

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: 4379813) - continued									
EM2210215-001	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
EM2210313-006	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4385505)									
EM2209584-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2210580-002	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
		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: 4379813)									
EM2210215-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2210313-006	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4385505)									
EM2209584-001	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0193	0.0197	2.1	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 (%)
EP231P: PFAS Sums (QC Lot: 4385505) - continued									
EM2209584-001	Anonymous	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0174	0.0177	1.7	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0189	0.0193	2.1	0% - 20%
EM2210580-002	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: 4388539)									
EM2210521-012	SX_OB_20220602_09_12_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: 4388558)									
EM2210521-001	SX_OB_20220602_09_12_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: 4389936)									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_ALS	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4388539)									

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: 4388539) - continued									
EM2210521-012	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4388558)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4389936)									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_ALS	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4388539)									

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: 4388539) - continued									
EM2210521-012	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4388558)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4389936)									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_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

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: 4389936) - continued									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_ALS	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: 4388539)									
EM2210521-012	SX_OB_20220602_09_12_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: 4388558)									
EM2210521-001	SX_OB_20220602_09_12_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: 4389936)									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4388539)									
EM2210521-012	SX_OB_20220602_09_12_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: 4388558)									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 4388558) - continued									
EM2210521-001	SX_OB_20220602_09_12_SS_Primary_ALS	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4389936)									
EM2210521-010	SX_OB_20220603_04_16_SR_Rinsate_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 Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4383491)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	98.2	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	61.1	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	101	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	96.7	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	97.6	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	87.9	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	94.3	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	81.6	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	90.7	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: 4386420)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.0	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4385416)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	99.2	98.8	101
				----	7 pH Unit	99.3	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4383492)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	84.4	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4383816)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	80.8	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4383817)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	80.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4387353)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	86.8	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4387356)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	102	70.0	130
EK040T: Fluoride Total (QCLot: 4383812)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	96.7	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4383263)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	112	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4379803)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	107	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	99.7	67.7	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4379803) - continued								
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	94.9	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	98.0	65.2	112
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	98.0	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	96.0	68.4	110
EP074H: Naphthalene (QCLot: 4379803)								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	106	72.3	114
EP074I: Volatile Halogenated Compounds (QCLot: 4379803)								
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	96.6	47.0	138
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	95.2	57.6	125
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	92.6	72.3	115
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	94.4	60.5	122
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	93.4	70.3	112
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	95.2	66.6	115
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	99.5	64.4	122
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	99.0	58.4	127
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	107	72.9	114
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	107	64.7	115
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	105	72.6	116
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	100	60.0	119
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	103	71.8	116
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	110	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	98.4	70.3	113
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	101	62.6	113
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	99.2	70.8	110
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	91.1	48.4	120
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4383265)								
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	86.8	74.5	126
EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	85.2	72.7	126
EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	86.2	73.5	132
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	87.7	72.8	128
EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	86.2	73.3	134
EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	84.0	72.4	128
EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	81.6	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	86.4	71.9	128
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	78.0	54.4	135

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4383265)								
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	87.0	71.5	130
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	85.5	73.4	129
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	85.6	74.3	129
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	82.2	70.9	133
EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	88.9	71.8	132
EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	49.6	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	86.2	65.3	134
EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	73.9	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	79.1	62.0	128
EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	65.7	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4383265)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	88.6	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	89.0	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	88.9	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	90.2	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	89.8	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	89.4	78.4	127
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	89.1	75.3	132
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.4	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	90.4	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	92.6	75.0	133
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	93.0	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	91.8	65.1	130
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	94.1	72.1	134
EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	93.7	72.9	135
EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	93.9	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4383265)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	90.3	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	89.9	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	91.3	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	91.4	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	91.5	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	88.2	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	89.5	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	90.1	73.6	130
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	90.7	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	91.0	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	89.9	69.4	134

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075I: Organochlorine Pesticides (QCLot: 4383265) - continued								
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	90.7	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	90.3	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	108	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	92.8	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	91.3	71.4	135
EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	90.7	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	92.7	70.2	135
EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	89.2	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	89.8	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4379803)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	96.8	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4383264)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	100	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	102	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	93.4	81.8	121
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	99.4	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4379803)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	99.2	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: 4383264)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	98.9	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	104	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	96.1	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	102	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379813)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	103	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	89.1	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	79.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	106	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	94.6	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	89.3	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385505)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	107	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	93.9	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	78.8	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	105	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	102	68.0	136

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385505) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	94.1	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379813)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	99.1	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.1	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.4	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.2	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.3	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385505)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	106	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	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	101	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.6	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379813)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.8	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.1	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385505)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385505) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	103	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.8	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.1	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4379813)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	92.6	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	99.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	104	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	109	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385505)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	112	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	111	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	117	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	110	70.0	130
EP231P: PFAS Sums (QCLot: 4379813)								
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: 4385505)								
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 (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4388539)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	106	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	91.1	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	88.3	68.0	131

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4388539) - continued								
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	89.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	81.0	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	74.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4388558)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	93.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	88.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	86.1	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	86.8	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	87.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4389936)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	96.6	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	85.9	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	78.8	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	87.4	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	80.6	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	75.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4388539)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.9	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	99.8	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	90.7	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.1	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.5	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	93.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	83.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	95.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4388558)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	87.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	94.8	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	85.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.0	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4388558) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	98.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4389936)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	85.6	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	84.8	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	86.9	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	85.8	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	84.1	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	89.3	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	87.8	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	99.7	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	94.4	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	83.9	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	96.6	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4388539)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	92.6	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	94.6	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	79.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4388558)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	94.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.9	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	91.8	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	96.1	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.5	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.6	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4389936)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	92.4	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	87.0	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	85.5	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	87.1	70.0	130
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	84.8	70.0	130
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	102	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	91.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4388539)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	103	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	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	71.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4388558)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	103	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	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	77.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4389936)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	95.6	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	93.3	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	102	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	74.1	70.0	130
EP231P: PFAS Sums (QCLot: 4388539)								
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: 4388558)								
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: 4389936)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 4389936) - continued								
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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4383491)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	94.5	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	86.2	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	97.9	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.2	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	84.6	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	106	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	84.2	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4383492)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	103	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4383816)							
EM2210229-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	77.3	58.0	114
EM2210229-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	73.0	58.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4383817)							
EM2210594-003	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	68.4	58.0	114
EM2210594-003	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	80.3	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4387353)							
EM2210163-019	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	78.1	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4387356)							
EM2210521-008	SX_IB_20220603_00_09_SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	20 mg/kg	102	70.0	130
EK040T: Fluoride Total (QCLot: 4383812)							
EM2210229-001	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	70.4	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4383263)							
EM2210521-003	SX_IB_20220602_12_01_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	102	59.6	152

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4379803)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	103	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	95.5	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4379803)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP074-UT: 1.1-Dichloroethene	75-35-4	2 mg/kg	94.4	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	99.2	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	90.5	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4383265)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	87.4	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	89.3	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	71.0	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4383265)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	86.6	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	82.7	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4383265)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	85.4	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	89.9	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4379803)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	76.3	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4383264)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	101	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	102	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	93.4	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	99.7	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4379803)							
EM2210521-002	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	70.8	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4383264)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	99.3	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	104	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	96.0	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	102	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379813)							
EM2210224-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	114	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	76.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	100	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	130	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	98.2	68.0	136

Sub-Matrix: **SOIL**

				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: 4379813) - continued							
EM2210224-001	Anonymous	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	95.6	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4385505)							
EM2209584-007	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	74.9	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	81.5	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	125	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	92.9	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	91.7	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379813)							
EM2210224-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	112	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	107	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	102	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	107	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	109	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	109	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	98.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	99.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	92.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	112	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4385505)							
EM2209584-007	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	111	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	99.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	94.9	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	104	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	112	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	95.8	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	93.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	101	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	90.3	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	117	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379813)							
EM2210224-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	105	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	119	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	112	70.0	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379813) - continued							
EM2210224-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	107	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	98.0	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	107	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4385505)							
EM2209584-007	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	107	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	109	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	104	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	111	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	86.4	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	115	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4379813)							
EM2210224-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	96.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	119	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	100	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4385505)							
EM2209584-007	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	82.5	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	111	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	98.1	70.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4388539)							
EM2210521-013	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	97.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	82.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	85.7	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: 4388539) - continued							
EM2210521-013	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	101	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	84.1	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	87.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4388558)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	101	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	95.5	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	87.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	92.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	79.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	80.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4389936)							
EM2210521-011	SX_OB_20220603_04_16_SB_Blank_ALS	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	89.2	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	103	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	93.0	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	100	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	85.8	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	84.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4388539)							
EM2210521-013	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	81.1	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	93.7	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	91.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	83.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	92.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	91.4	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	90.9	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	88.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	95.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4388558)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	95.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	83.0	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	91.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	94.9	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	92.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.7	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	90.2	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	88.0	69.0	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: 4388558) - continued							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	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	87.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	95.9	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4389936)							
EM2210521-011	SX_OB_20220603_04_16_SB_Blank_ALS	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	92.9	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	90.3	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	100	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	98.5	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	89.1	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	97.0	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	99.5	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	102	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	99.9	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	82.0	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	94.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4388539)							
EM2210521-013	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	81.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	78.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	98.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	78.9	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	90.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4388558)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.7	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	87.4	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	88.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.3	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	90.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	92.3	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: 4388558) - continued							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	88.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4389936)							
EM2210521-011	SX_OB_20220603_04_16_SB_Blank_ALS	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	92.4	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	110	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	96.8	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	101	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	93.6	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	116	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4388539)							
EM2210521-013	SX_OB_20220602_09_13_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	96.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	93.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	109	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	79.5	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4388558)							
EM2210521-004	SX_OB_20220602_12_19_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	95.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	115	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	117	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	73.5	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4389936)							
EM2210521-011	SX_OB_20220603_04_16_SB_Blank_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	99.3	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	98.2	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	115	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	77.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2210521**	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	: 03-Jun-2022
Site	: 20220603043514-ALS-56	Issue Date	: 10-Jun-2022
Sampler	: DB - EP Risk	No. of samples received	: 20
Order number	: ----	No. of samples analysed	: 20

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP074S: VOC Surrogates (Ultra-Trace)	EM2210521-008	SX_IB_20220603_00_09_SS_	**1.2-Dichloroethane-D4**	17060-07-0	120 %	59.0-119 %	**Recovery greater than upper 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_OB_20220602_09_12_SS_Primary_ALS,	SX_OB_20220602_09_13_SS_Duplicate_ALS,	**02-Jun-2022**	**08-Jun-2022**	09-Jun-2022	✓	**08-Jun-2022**	08-Jun-2022	✓
SX_IB_20220602_12_01_SS_Primary_ALS,	SX_OB_20220602_12_19_SS_Primary_ALS,							
SX_OB_20220602_15_52_SS_Triplicate_ALS,	SX_OB_20220602_15_58_SS_Primary_ALS,							
SX_OB_20220602_20_03_SS_Primary_ALS,	SX_IB_20220603_00_09_SS_Primary_ALS,							
SX_OB_20220603_04_05_SS_Primary_ALS								
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_OB_20220602_09_12_SS_Primary_ALS,	SX_OB_20220602_09_13_SS_Duplicate_ALS,	**02-Jun-2022**	**----**	----	----	**07-Jun-2022**	16-Jun-2022	✓
SX_IB_20220602_12_01_SS_Primary_ALS,	SX_OB_20220602_12_19_SS_Primary_ALS,							
SX_OB_20220602_15_52_SS_Triplicate_ALS,	SX_OB_20220602_15_58_SS_Primary_ALS,							
SX_OB_20220602_20_03_SS_Primary_ALS,	SX_IB_20220603_00_09_SS_Primary_ALS,							
SX_OB_20220603_04_05_SS_Primary_ALS								
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SX_OB_20220602_09_12_SS_Primary_ALS,	SX_OB_20220602_09_13_SS_Duplicate_ALS,	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	29-Nov-2022	✓
SX_IB_20220602_12_01_SS_Primary_ALS,	SX_OB_20220602_12_19_SS_Primary_ALS,							
SX_OB_20220602_15_52_SS_Triplicate_ALS,	SX_OB_20220602_15_58_SS_Primary_ALS,							
SX_OB_20220602_20_03_SS_Primary_ALS,	SX_IB_20220603_00_09_SS_Primary_ALS,							
SX_OB_20220603_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_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	30-Jun-2022	✓	**08-Jun-2022**	30-Jun-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved (EG048G)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	30-Jun-2022	✓	**08-Jun-2022**	14-Jun-2022	✓
EK026SF: Total CN by Segmented Flow Analyser							
Soil Glass Jar - Unpreserved (EK026SF)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	16-Jun-2022	✓	**09-Jun-2022**	22-Jun-2022	✓
EK040T: Fluoride Total							
Soil Glass Jar - Unpreserved (EK040T)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	30-Jun-2022	✓	**09-Jun-2022**	30-Jun-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**----**	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**----**	----	----

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	09-Jun-2022	✓	**04-Jun-2022**	09-Jun-2022	✓
EP074H: Naphthalene							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	09-Jun-2022	✓	**04-Jun-2022**	09-Jun-2022	✓
EP074I: Volatile Halogenated Compounds							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	09-Jun-2022	✓	**04-Jun-2022**	09-Jun-2022	✓
EP075A: Phenolic Compounds (Halogenated)							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓
EP075I: Organochlorine Pesticides							
Soil Glass Jar - Unpreserved (EP075-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	09-Jun-2022	✓	**04-Jun-2022**	09-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP074-UT)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**03-Jun-2022**	09-Jun-2022	✓	**04-Jun-2022**	09-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**07-Jun-2022**	16-Jun-2022	✓	**07-Jun-2022**	17-Jul-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	18-Jul-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	18-Jul-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	18-Jul-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	18-Jul-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**02-Jun-2022**	**08-Jun-2022**	29-Nov-2022	✓	**08-Jun-2022**	18-Jul-2022	✓

Matrix: **WATER**

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

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

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ)							
SX_OB_20220603_04_16_SR_Rinsate_ALS, SX_OB_20220603_04_16_SB_Blank_ALS	**02-Jun-2022**	**09-Jun-2022**	29-Nov-2022	✓	**09-Jun-2022**	29-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS, SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**08-Jun-2022**	**09-Jun-2022**	05-Dec-2022	✓	**09-Jun-2022**	05-Dec-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X-INJ)							
SX_OB_20220603_04_16_SR_Rinsate_ALS, SX_OB_20220603_04_16_SB_Blank_ALS	**02-Jun-2022**	**09-Jun-2022**	29-Nov-2022	✓	**09-Jun-2022**	29-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS, SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**08-Jun-2022**	**09-Jun-2022**	05-Dec-2022	✓	**09-Jun-2022**	05-Dec-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X-INJ)							
SX_OB_20220603_04_16_SR_Rinsate_ALS, SX_OB_20220603_04_16_SB_Blank_ALS	**02-Jun-2022**	**09-Jun-2022**	29-Nov-2022	✓	**09-Jun-2022**	29-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS, SX_OB_20220602_09_12_SS_Primary_ALS, SX_OB_20220602_09_13_SS_Duplicate_ALS, SX_IB_20220602_12_01_SS_Primary_ALS, SX_OB_20220602_12_19_SS_Primary_ALS, SX_OB_20220602_15_52_SS_Triplicate_ALS, SX_OB_20220602_15_58_SS_Primary_ALS, SX_OB_20220602_20_03_SS_Primary_ALS, SX_IB_20220603_00_09_SS_Primary_ALS, SX_OB_20220603_04_05_SS_Primary_ALS	**08-Jun-2022**	**09-Jun-2022**	05-Dec-2022	✓	**09-Jun-2022**	05-Dec-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-INJ)								
SX_OB_20220603_04_16_SR_Rinsate_ALS,	SX_OB_20220603_04_16_SB_Blank_ALS	**02-Jun-2022**	**09-Jun-2022**	29-Nov-2022	✓	**09-Jun-2022**	29-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220602_09_12_SS_Primary_ALS,	SX_OB_20220602_09_13_SS_Duplicate_ALS,	**08-Jun-2022**	**09-Jun-2022**	05-Dec-2022	✓	**09-Jun-2022**	05-Dec-2022	✓
SX_IB_20220602_12_01_SS_Primary_ALS,	SX_OB_20220602_12_19_SS_Primary_ALS,							
SX_OB_20220602_15_52_SS_Triplicate_ALS,	SX_OB_20220602_15_58_SS_Primary_ALS,							
SX_OB_20220602_20_03_SS_Primary_ALS,	SX_IB_20220603_00_09_SS_Primary_ALS,							
SX_OB_20220603_04_05_SS_Primary_ALS,	SX_OB_20220602_09_12_SS_Primary_ALS,							
SX_OB_20220602_09_13_SS_Duplicate_ALS,	SX_IB_20220602_12_01_SS_Primary_ALS,							
SX_OB_20220602_12_19_SS_Primary_ALS,	SX_OB_20220602_15_52_SS_Triplicate_ALS,							
SX_OB_20220602_15_58_SS_Primary_ALS,	SX_OB_20220602_20_03_SS_Primary_ALS,							
SX_IB_20220603_00_09_SS_Primary_ALS,	SX_OB_20220603_04_05_SS_Primary_ALS							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X-INJ)								
SX_OB_20220603_04_16_SR_Rinsate_ALS,	SX_OB_20220603_04_16_SB_Blank_ALS	**02-Jun-2022**	**09-Jun-2022**	29-Nov-2022	✓	**09-Jun-2022**	29-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_OB_20220602_09_12_SS_Primary_ALS,	SX_OB_20220602_09_13_SS_Duplicate_ALS,	**08-Jun-2022**	**09-Jun-2022**	05-Dec-2022	✓	**09-Jun-2022**	05-Dec-2022	✓
SX_IB_20220602_12_01_SS_Primary_ALS,	SX_OB_20220602_12_19_SS_Primary_ALS,							
SX_OB_20220602_15_52_SS_Triplicate_ALS,	SX_OB_20220602_15_58_SS_Primary_ALS,							
SX_OB_20220602_20_03_SS_Primary_ALS,	SX_IB_20220603_00_09_SS_Primary_ALS,							
SX_OB_20220603_04_05_SS_Primary_ALS,	SX_OB_20220602_09_12_SS_Primary_ALS,							
SX_OB_20220602_09_13_SS_Duplicate_ALS,	SX_IB_20220602_12_01_SS_Primary_ALS,							
SX_OB_20220602_12_19_SS_Primary_ALS,	SX_OB_20220602_15_52_SS_Triplicate_ALS,							
SX_OB_20220602_15_58_SS_Primary_ALS,	SX_OB_20220602_20_03_SS_Primary_ALS,							
SX_IB_20220603_00_09_SS_Primary_ALS,	SX_OB_20220603_04_05_SS_Primary_ALS							

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	34	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	39	**10.26**	**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	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	39	**5.13**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-Dla-P	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	39	**5.13**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	39	**5.13**	**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	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	6	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071-EM	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).

Analytical Methods	Method	Matrix	Method Descriptions
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
SVOC - Waste Classification (Sums)	EP075-EM-SUM	SOIL	Summations for EP075 (EM variation)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
Total Fluoride	EK040T-PR	SOIL	In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux.
ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel	EN60a-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates.
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils - Ultra-trace.	ORG16-UT	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids - VIC EPA Screen	ORG17-EM	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

Preparation Methods	Method	Matrix	Method Descriptions
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.