TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C03.0320220609103747_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	762	Approx. Source Tunnel Chainage To	762
Approx. Rings From	320	Approx. Rings To	320
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	C03.03	Start of Filling From (Time / date)	30/05/2022
Tonnes Put in Holding Bay No:	6766.94	Finish of Filling (Time / Date)	31/05/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 285.71	Approx. Bank Cubic Meters (BCM)	.00

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_20220530_07_48_SS_Primary_ALS	**SX_OB_20220530_12_45_SS_Primary_EUF**	**SX_OB_20220530_16_04_SS_Duplicate_EUF**
SX_OB_20220530_07_49_SS_Duplicate_ALS	**SX_OB_20220530_12_55_SS_Primary_ALS**	**SX_OB_20220530_16_05_SS_Triplicate_ALS**
SX_OB_20220530_07_49_SS_Triplicate_EUF	**SX_OB_20220530_12_56_SS_Primary_EUF**	**SX_OB_20220530_20_04_SS_Primary_EUF**
SX_OB_20220530_07_56_SS_Primary_EUF	**SX_OB_20220530_15_49_SS_Primary_ALS**	**SX_OB_20220530_20_08_SS_Primary_ALS**
SX_OB_20220530_12_45_SS_Primary_ALS	**SX_OB_20220530_16_03_SS_Primary_EUF**	
Total Sample Numbers	14	Ratio Acceptable
Primary Sample Numbers	10	Yes
Classified Volume (LCM)	4000 m^3	
Volume: Sample Number Ratio (Samples per LCM)	1 : 285.71	

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	14*	10	1 : 285.71	14	34	50.71	58.31	85	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	14*	10	1 : 285.71	14	62	142.4	163	200	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

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

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

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

PFAS Test Results											
Chemical	**Unit**	**LOR**	**No. of Samples**	**No. of primary samples**	**No > LOR**	**Min**	**Mean**	**95% UCL on Mean**	**Max**	**Upper Limiting Criteria for NPIW Containment**	**Spoil Category for PFAS**
Total PFAS Concentrations											
Total PFOS	ug/kg	5	14*	10	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	14*	10	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	14*	10	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	14*	10	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	14*	10	1	<0.01	N/A	N/A	0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	14*	10	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	14*	10	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

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

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

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

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

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Table 3.5 - 3 PFAS Parameter Concentrations and Waste Classifications

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

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4. Comments and Limitations

	Comments and Limitations
1.	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.
8.	Opinions and judgements expressed herein are based on Agon's understanding of current regulatory standards and should not be construed as legal opinions. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties other than those listed above.
9.	This report should be read in full.

5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

TBM Spoil Waste Categorisation Report

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ATTACHMENT A: TABULATED RESULTS

Tabulated Results

										Metals								
										Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel
										mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL										2	1	5	5	1	5	0.1	5	5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																		
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																		
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																		
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																		
EPA Victoria IWRG621 Category B Leached Upper Limits																		
EPA Victoria IWRG621 Category B Upper Limits										2,000	400	20,000		2,000	6,000	300	4,000	12,000
EPA Victoria IWRG621 Category C Leached Upper Limits																		
EPA Victoria IWRG621 Category C Upper Limts										500	100	5,000		500	1,500	75	1,000	3,000
EPA Victoria IWRG621 Fill Upper Limits										20	3	100		1	300	1	40	60
Location Code	**Field ID**	**Sample Code**	**Date**	**Date /Time**	**Lab Report Number**	**Lab Name**	**Parent Sample**											
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	EM2210112001	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne				64	<1	31	104	<1.0	8	<0.1	<5	63
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	EM2210112010	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne												
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	EM2210112002	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne	EM2210112001			61	<1	31	79	<1.0	5	<0.1	<5	62
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	EM2210112011	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne	EM2210112010											
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	M22-My0073868	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	EM2210112001			77	<1	57	110	<1	8.3	<0.1	<5	85
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	M22-My0073877	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	EM2210112001											
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	M22-My0073886	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	EM2210112010											
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	M22-My0073869	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ				40	<1	47	100	<1	5.8	<0.1	<5	150
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	M22-My0073878	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	M22-My0073887	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	EM2210112003	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne				35	<1	69	109	<1.0	<5	<0.1	<5	159
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	EM2210112012	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne												
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	M22-My0073870	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ				35	<1	67	150	<1	<5	<0.1	<5	190
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	M22-My0073879	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	M22-My0073888	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	EM2210112004	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne				38	<1	65	106	<1.0	<5	<0.1	<5	168
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	EM2210112013	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne												
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	M22-My0073871	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ				39	<1	72	150	<1	<5	<0.1	<5	200
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	M22-My0073880	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	M22-My0073889	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	EM2210112005	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne				34	<1	40	74	<1.0	<5	<0.1	<5	126
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	EM2210112014	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne												
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	M22-My0073872	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ				85	<1	68	130	<1	5.2	<0.1	<5	160
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	M22-My0073881	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	M22-My0073890	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	M22-My0073873	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	M22-My0073872			52	<1	58	110	<1	5.1	<0.1	<5	150
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	M22-My0073882	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	M22-My0073881											
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	M22-My0073891	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ	M22-My0073890											
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	EM2210112006	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne	M22-My0073872			52	<1	52	89	<1.0	<5	<0.1	<5	150
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	EM2210112015	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne	M22-My0073890											
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	M22-My0073874	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ				50	<1	73	150	<1	5.2	<0.1	<5	180
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	M22-My0073883	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	M22-My0073892	30/05/2022	30/05/2022	893162	Eurofins Environment ANZ												
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	EM2210112007	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne				48	<1	56	96	<1.0	<5	<0.1	<5	150
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	EM2210112016	30/05/2022	30/05/2022 15:00	EM2210112	ALSE-Melbourne												

Tabulated Results

						PAH																
		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	Dibenz(a,h)anthracene	Fluoranthene	Fluorene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		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	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits		200	720		140,000	400									20							
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts		50	180	500	35,000	100									5							
EPA Victoria IWRG621 Fill Upper Limits		10	10	50	200	20									1							
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<5	<2	<10	37	<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
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<5	<2	<10	47	<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
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<5	<2	<10	61			<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
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<5	<2	<10	94			<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
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<5	<2	<10	134	<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
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<5	<2	<10	140			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<5	<2	<10	117	<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
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<5	<2	<10	117	<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
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<5	<2	<10	160			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<5	<2	<10	66	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<5	<2	<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<5	<2	<10	100			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<5	<2	<10	81	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<5	<2	<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<5	<2	<10	95	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

Tabulated Results

							BTEX						TRH							TPH		
		Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50	20	20	50
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits						400	16													2,600		
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts						100	4													650		
EPA Victoria IWRG621 Fill Upper Limits						20	1													100		
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_55_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<0.5	<0.5	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

Tabulated Results

				Organochlorine Pesticides																		
		C29-C36	+C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		50	50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits			40,000			4.8				50							16				4.8	
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts			10,000			1.2				50							4				1.2	
EPA Victoria IWRG621 Fill Upper Limits			1,000																			
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<100	<50	<0.05	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

agon ENVIRONMENTAL

Tabulated Results

																							Phenols
		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	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
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.05	0.05	0.05	0.05	0.05	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits									50													
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts									10													
EPA Victoria IWRG621 Fill Upper Limits								1														
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

Tabulated Results

	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)		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
	mg/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	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
EQL	1	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
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**																				
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<1.00	<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
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<1.00	<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
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_07_49_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	
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_07_56_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	
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<1.00	<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
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_12_45_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	
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<1.00	<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
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_12_55_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	
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<1.00	<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
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_16_03_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	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_16_04_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	
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<1.00	<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
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_20_04_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	
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF													<0.00001		<0.00001		<0.00005		<0.00001		<0.00005
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<1.00	<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
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS													<0.00005		<0.00005		<0.00005		<0.00005		<0.00005

Tabulated Results

	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)		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecanesulfonic acid (PFDS)	
	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	0.00005	0.01	0.00005	0.005	0.00005	0.005	0.00005	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
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**																				
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_12_45_SS_Primary_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_12_45_SS_Primary_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_12_55_SS_Primary_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_12_55_SS_Primary_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_12_55_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_12_56_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_12_56_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_15_49_SS_Primary_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_15_49_SS_Primary_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001	
C03.03	**SX_OB_20220530_20_08_SS_Primary_ALS**	<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	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C03.03	**SX_OB_20220530_20_08_SS_Primary_ALS**		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002	

Tabulated Results

		PFOS/PFOA																				
		Perfluoroheptanoic acid (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
		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	mg/L
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	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001
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**																					
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_07_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_12_45_SS_Primary_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_12_45_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_12_45_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_12_55_SS_Primary_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_12_55_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_12_56_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_12_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_12_56_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_15_49_SS_Primary_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_15_49_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_20_04_SS_Primary_EUF**	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_20_08_SS_Primary_ALS**	<0.00002	<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
C03.03	**SX_OB_20220530_20_08_SS_Primary_ALS**	<0.00002		<0.00002		<0.00002		<0.00002				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005

		(PFTeDA)	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	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.0001	0.05	0.5	0.5	0.5	0.5
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**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.0050	<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
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.0050	<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
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<0.0050	<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
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<0.0050	<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
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF		<0.00001		<0.00001		0.00001		<0.00001		0.00001		0.00001		0.00001		<0.0001					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<0.0050	<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
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.0050	<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
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.0001					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<0.0050	<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
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS		<0.00002		<0.00002		<0.00001		<0.00001		<0.00001						<0.00010					

Tabulated Results

		Chlorinated Hydrocarbons																				
		1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVic	Trichloroethene	Chlorinated hydrocarbons EPAVic	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits														11	50						4.8	
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts														2.8	10						1.2	
EPA Victoria IWRG621 Fill Upper Limits																	1					
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_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	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_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	
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_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
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_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	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_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	
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_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
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_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	
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_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	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_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
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_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	
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_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
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_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	
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

Tabulated Results

							NA			PCBs								Inorganics				
		Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*		Moisture Content	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
EQL		0.5	0.5	0.5	0.5	0.5	0.05		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits																						
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts																						
EPA Victoria IWRG621 Fill Upper Limits																	2					
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	29.5								<0.1	1.2	5.1	7.6	5.0	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS							<0.05											9.3			
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	29.0								<0.1	1.2	5.1	6.8	5.0	
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS							<0.05											9.1			
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF						<0.05												5.1		5.0	
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF						<0.05												8.0		7.1	
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.6
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF						<0.05												5.1		5.0	
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF						<0.05												8.4		7.1	
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	33.7								<0.1	1.2	5.1	8.1	5.0	
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS							<0.05											9.0			
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.7
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF						<0.05												5.0		5.0	
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF						<0.05												8.2		7.1	
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	33.5								<0.1	1.2	5.1	9.2	5.0	
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS							<0.05											9.7			
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.3
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF						<0.05												5.0		5.0	
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF						<0.05												8.6		7.1	
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	31.2								<0.1	1.1	5.1	8.3	5.0	
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS							<0.05											9.3			
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.5
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF						<0.05												5.1		5.0	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF						<0.05												8.2		7.1	
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.9
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF						<0.05												5.1		5.0	
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF						<0.05												8.3		7.1	
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	28.1								<0.1	1.1	5.1	8.4	5.0	
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS							<0.05											9.5			
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.7
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF						<0.05												5.1		5.0	
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF						<0.05												8.1		7.1	
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	<0.05	32.3								<0.1	1.1	5.1	8.3	5.0	
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS							<0.05											9.4			

agon ENVIRONMENTAL

Tabulated Results

				Halogenated Benzenes							Halogenated Hydrocarbons					MAH					
		Fluoride	Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocylic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene
		mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		100	1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold																						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits		40,000		10,000														240				
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limts		10,000		2,500														70				
EPA Victoria IWRG621 Fill Upper Limits		450		50														7				
Location Code	**Field ID**																					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	160		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	240		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	120	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS	170		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	130	35	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS	160		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS																					
C03.03	SX_OB_20220530_12_55_SS_Primary_EUF	160	36	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF																					
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS	190		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																					
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	200		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF																					
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS	180		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5		
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS																					

	Solvents					SPOCAS
	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL	0.5	0.5	0.5	0.5	0.5	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold						
EPA PFAS Classification - Tunnel Zone - No option for disposal threshold						
EPA Victoria IWRG621 Category B Leached Upper Limits						
EPA Victoria IWRG621 Category B Upper Limits						
EPA Victoria IWRG621 Category C Leached Upper Limits						
EPA Victoria IWRG621 Category C Upper Limts						
EPA Victoria IWRG621 Fill Upper Limits						
Location Code	**Field ID**					
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS					7.7
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS					
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS					7.7
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS					
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF						
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF						
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF						
C03.03	SX_OB_20220530_07_56_SS_Primary_EUF						
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS						7.6
C03.03	SX_OB_20220530_12_45_SS_Primary_ALS						
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF						
C03.03	SX_OB_20220530_12_45_SS_Primary_EUF						
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS						8.2
C03.03	SX_OB_20220530_12_55_SS_Primary_ALS						
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF						
C03.03	SX_OB_20220530_12_56_SS_Primary_EUF						
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS						7.7
C03.03	SX_OB_20220530_15_49_SS_Primary_ALS						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF						
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS						7.8
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS						
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF						
C03.03	SX_OB_20220530_20_04_SS_Primary_EUF						
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS						7.8
C03.03	SX_OB_20220530_20_08_SS_Primary_ALS						

								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**	**Depth**	**Lab Report Number**	**Lab Name**	**Sample Type**	**Parent Sample**										
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022		893162	Eurofins Environment ANZ	Normal		85	<1	68	130	<1	5.2	<0.1	<5	160	<5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Field_D	M22-My0073872	52	<1	58	110	<1	5.1	<0.1	<5	150	<5
RPD								48	0	16	17	0	2	0	0	6	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022		893162	Eurofins Environment ANZ	Normal		85	<1	68	130	<1	5.2	<0.1	<5	160	<5
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Interlab_D	M22-My0073872	52	<1	52	89	<1.0	<5	<0.1	<5	150	<5
RPD								48	0	27	37	0	4	0	0	6	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022		893162	Eurofins Environment ANZ	Normal											
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Field_D	M22-My0073881										
RPD																	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022		893162	Eurofins Environment ANZ	Normal											
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Field_D	M22-My0073890										
RPD																	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022		893162	Eurofins Environment ANZ	Normal											
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Interlab_D	M22-My0073890										
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal		64	<1	31	104	<1.0	8	<0.1	<5	63	<5
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Field_D	EM2210112001	61	<1	31	79	<1.0	5	<0.1	<5	62	<5
RPD								5	0	0	27	0	46	0	0	2	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal		64	<1	31	104	<1.0	8	<0.1	<5	63	<5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Interlab_D	EM2210112001	77	<1	57	110	<1	8.3	<0.1	<5	85	<5
RPD								18	0	59	6	0	4	0	0	30	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal		64	<1	31	104	<1.0	8	<0.1	<5	63	<5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Interlab_D	EM2210112001										
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal											
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal											
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Field_D	EM2210112010										
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	30/05/2022		EM2210112	ALSE-Melbourne	Normal											
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	30/05/2022		893162	Eurofins Environment ANZ	Interlab_D	EM2210112010										
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	Naphthalene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		2	10	5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<2	<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<2	<10	100			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	18			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<2	<10	120			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<2	<10	81	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	39			0	0	0	0	0	0	0	0		0		0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<2	<10	37	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<2	<10	47	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	24	0	0	0	0	0	0	0	0	0	0		0		0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<2	<10	37	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<2	<10	61			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	49			0	0	0	0	0	0	0	0		0		0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<2	<10	37	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							

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

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

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

					BTEX						TRH							TPH					
		Phenanthrene	Pyrene	PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)	Aldrin
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50	20	20	50	50	50	0.05
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.05
RPD		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.5	<0.5		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100	<100	<50	<20	<50	<100	<100	<50	<0.05
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							

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

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

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

		Organochlorine Pesticides																					
		Dieldrin	Aldrin + Dieldrin	DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	chlordane	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05	<0.30	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.10	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							

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

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

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

						Phenols																	
		Methoxychlor	Toxaphene	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-chloro-3-methylphenol	Pentachlorophenol	2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4,6-Dinitro-2-methylphenol	Tetrachlorophenols	2,3,5,6-Tetrachlorophenol	Cresol Total	4,6-Dinitro-o-cyclohexyl phenol	Phenols (halogenated) EPAVic	Phenols (non-halogenated) EPAVic	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.05	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	1	20	0.5	0.2	1
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1
RPD		0	0	0	0	0	0	0	0	0	0	0		0	0		0	0			0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD		0		0	0	0	0	0	0	0	0	0		0				0			0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																						
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1
RPD		0		0	0	0	0	0	0	0	0	0	0	0		0		0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2	<1
RPD		0		0	0	0	0	0	0	0	0	0		0				0			0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<0.05		<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5		<0.03		<20	<1.00	<20	<1	<1	<1
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																						
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																						
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																						
RPD																							

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

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

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

Location Code	Field ID	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)		8:2 Fluorotelomer sulfonic acid (8:2 FTS)		6:2 Fluorotelomer sulfonic acid (6:2 FTS)		4:2 Fluorotelomer sulfonic acid (4:2 FTS)		N-Ethyl perfluorooctane sulfonamide (NEtFOSA)		N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)		N-Methyl perfluorooctane
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
EQL		5	0.4	5	20	0.5	1	20	0.00001	0.005	0.00001	0.005	0.00005	0.01	0.00001	0.005	0.00005	0.005	0.00005	0.01	0.00005	0.005	0.00005
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005	
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005	
RPD		0	0	0	0	0	0	0		0		0		0		0		0		0		0	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005	
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005
RPD		0	0	0	0	0				0		0		0		0		0		0		0	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS								<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005
RPD		0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<5	<0.4	<5	<20	<0.5	<1	<20		<0.005		<0.005		<0.01		<0.005		<0.005		<0.01		<0.005	
RPD		0	0	0	0	0				0		0		0		0		0		0		0	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS								<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS								<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS								<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF								<0.00001		<0.00001		<0.00005		<0.00001		<0.00005		<0.00005		<0.00005		<0.00005
RPD									0		0		0		0		0		0		0		0

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

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

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

																				PFOS/PFOA				
		sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)		Perfluorobutanoic acid (PFBA)		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecanesulfonic acid (PFDS)		Perfluoroheptanoic acid (PFHpA)		Perfluoroheptane sulfonic acid (PFHpS)		Perfluorohexanoic acid (PFHxA)		Perfluorononanoic acid
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
EQL		0.005	0.00005	0.01	0.00005	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001
Location Code	**Field ID**																								
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**	<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD		0		0		0		0		0		0		0		0		0		0		0		0	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
RPD		0		0		0		0		0		0		0		0		0		0		0		0	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
RPD			0		0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<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	0	0	0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**	<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD		0		0		0		0		0		0		0		0		0		0		0		0	
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
RPD			0		0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**		<0.00005		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0		0

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

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

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

		(PFNA)	Perfluorononanesulfonic acid (PFNS)(trace)		Perfluorooctanoic acid (PFOA)		Perfluorooctane sulfonamide (PFOSA)		Perfluoropentanoic acid (PFPeA)		Perfluoropentane sulfonic acid (PFPeS)		Perfluoropropanesulfonic acid (PFPrS)		Perfluorotetradecanoic acid (PFTeDA)		Perfluorotridecanoic acid (PFTrDA)		Perfluoroundecanoic acid (PFUnDA)		Perfluorooctanesulfonic acid (PFOS)		Perfluorohexane sulfonic
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L
EQL		0.005	0.00001	0.005	0.00001	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001
Location Code	**Field ID**																						
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_04_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	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
RPD		0				0		0		0		0				0		0		0		0	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD			0		0		0		0		0		0		0		0		0		0		0
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
RPD					0		0		0		0				0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
RPD		0			0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C03.03	**SX_OB_20220530_07_49_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	
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050			<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050			<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD					0		0		0		0				0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
RPD					0		0		0		0				0		0		0		0		0
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**				<0.00001		<0.00005		<0.00002		<0.00002				<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
RPD					0		0		0		0				0		0		0		0		0

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

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

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

		acid (PFHxS)	Sum of PFHxS and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		Sum of PFAS	Sum of PFAS	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	1,1,1,2-tetrachloroethane	Bromodichloromethane	1,1,1-trichloroethane	Chloroform	1,1,2,2-tetrachloroethane	Chloromethane
		mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.0001	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
Location Code	**Field ID**																							
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**	<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0		0		0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**	<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50	
RPD		0		0						0		0		0				0		0	0	0	
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
RPD			0		0		0		0														
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
C03.03	**SX_OB_20220530_16_04_SS_Duplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
RPD			0		0		0		0														
C03.03	**SX_OB_20220530_16_03_SS_Primary_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
C03.03	**SX_OB_20220530_16_05_SS_Triplicate_ALS**		<0.00001						<0.00010														
RPD			0						0														
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50	
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50	
RPD		0	0	0					0	0		0		0				0		0	0	0	
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50	
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**	<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0		0						0		0		0				0		0	0	0	
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50	<0.50	<0.50	
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
RPD			0						0														
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**		<0.00001						<0.00010														
C03.03	**SX_OB_20220530_07_49_SS_Duplicate_ALS**		<0.00001						<0.00010														
RPD			0						0														
C03.03	**SX_OB_20220530_07_48_SS_Primary_ALS**		<0.00001						<0.00010														
C03.03	**SX_OB_20220530_07_49_SS_Triplicate_EUF**		<0.00001		<0.00001		<0.00001		<0.0001														
RPD			0						0														

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

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

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

		Chlorinated Hydrocarbons																	NA				
		cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVic	Trichloroethene	Chlorinated hydrocarbons EPAVic	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*		Moisture Content	Arochlor 1232	Arochlor 1242
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	mg/kg	mg/kg
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05		1	0.1	0.1
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS			<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	28.1		
RPD				0	0	0	0	0	0	0		0		0			0	0	0				
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																		<0.05				
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																		<0.05				
RPD																			0				
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																		<0.05				
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																		<0.05				
RPD																			0				
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																		<0.05				
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																			<0.05			
RPD																							
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS			<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	29.5		
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS			<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	29.0		
RPD				0	0	0	0	0	0	0		0		0			0	0	0	0	2		
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS			<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	29.5		
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10			<0.1	<0.1
RPD				0	0	0	0	0	0	0		0		0			0	0	0				
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS			<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	29.5		
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																		<0.05				
RPD																			0				
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																			<0.05			
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																			<0.05			
RPD																				0			
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																			<0.05			
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																		<0.05				
RPD																							

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

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

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

		PCBs						Inorganics								Halogenated Benzenes								
		Arochlor 1248	Arochlor 1254	Arochlor 1221	Arochlor 1260	Arochlor 1016	PCBs (Sum of total)	pH (after HCL)	pH (Final)	pH (Initial)	pH of Leaching Fluid	pH (aqueous extract)	Fluoride	Moisture Content (dried @ 103°C)	Cyanide Total	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100	1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	**Field ID**																						
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.5	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.9	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	0	0	0	0					6	0	0	0	0	0	0	0	0	0	0	0
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.5	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS						<0.1	1.1	5.1	8.4	5.0		200		<5	<0.50	<0.50		<0.50			<0.50	
RPD							0						67		0	0	0		0			0	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								5.1		5.0												
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF								5.1		5.0												
RPD									0		0												
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								8.2		7.1												
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF								8.3		7.1												
RPD									1		0												
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF								8.2		7.1												
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS								9.5														
RPD									15														
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.1	1.2	5.1	7.6	5.0		160		<5	<0.50	<0.50		<0.50			<0.50	
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS						<0.1	1.2	5.1	6.8	5.0		240		<5	<0.50	<0.50		<0.50			<0.50	
RPD							0	0	0	11	0		40		0	0	0		0			0	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.1	1.2	5.1	7.6	5.0		160		<5	<0.50	<0.50		<0.50			<0.50	
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					6.5	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD							0						46		0	0	0		0			0	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.1	1.2	5.1	7.6	5.0		160		<5	<0.50	<0.50		<0.50			<0.50	
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF								5.1		5.0												
RPD									0		0												
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS								9.3														
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS								9.1														
RPD									2														
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS								9.3														
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF								8.0		7.1												
RPD									15														

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

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

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

		Halogenated Hydrocarbons				MAH						Solvents					SPOCAS
		Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocylic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
Location Code	**Field ID**																
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_16_04_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	
RPD		0	0	0	0	0		0	0	0	0	0	0	0	0	0	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS						<0.5		<0.5								7.8
RPD									0								
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																
RPD																	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																
C03.03	SX_OB_20220530_16_04_SS_Duplicate_EUF																
RPD																	
C03.03	SX_OB_20220530_16_03_SS_Primary_EUF																
C03.03	SX_OB_20220530_16_05_SS_Triplicate_ALS																
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.5		<0.5								7.7
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS						<0.5		<0.5								7.7
RPD							0		0								0
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.5		<0.5								7.7
C03.03	SX_OB_20220530_07_49_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	
RPD									0								
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS						<0.5		<0.5								7.7
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																
C03.03	SX_OB_20220530_07_49_SS_Duplicate_ALS																
RPD																	
C03.03	SX_OB_20220530_07_48_SS_Primary_ALS																
C03.03	SX_OB_20220530_07_49_SS_Triplicate_EUF																
RPD																	

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

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

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

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C03.0320220609103747_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

	A	B	C	D	E	F	G	H	I	J	K	L
1	**UCL Statistics for Data Sets with Non-Detects**											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.110/06/2022 9:36:19 AM										
5	From File	WorkSheet_a.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	**Arsenic**											
12												
13	**General Statistics**											
14	Total Number of Observations					14	Number of Distinct Observations					12
15							Number of Missing Observations					0
16	Minimum					34	Mean					50.71
17	Maximum					85	Median					49
18	SD					16.05	Std. Error of Mean					4.288
19	Coefficient of Variation					0.316	Skewness					0.968
20												
21	**Normal GOF Test**											
22	Shapiro Wilk Test Statistic					0.888	**Shapiro Wilk GOF Test**					
23	5% Shapiro Wilk Critical Value					0.874	Data appear Normal at 5% Significance Level					
24	Lilliefors Test Statistic					0.182	**Lilliefors GOF Test**					
25	5% Lilliefors Critical Value					0.226	Data appear Normal at 5% Significance Level					
26	**Data appear Normal at 5% Significance Level**											
27												
28	**Assuming Normal Distribution**											
29	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
30	95% Student's-t UCL					58.31	95% Adjusted-CLT UCL (Chen-1995)					58.95
31							95% Modified-t UCL (Johnson-1978)					58.49
32												
33	**Gamma GOF Test**											
34	A-D Test Statistic					0.457	**Anderson-Darling Gamma GOF Test**					
35	5% A-D Critical Value					0.734	Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic					0.183	**Kolmogorov-Smirnov Gamma GOF Test**					
37	5% K-S Critical Value					0.229	Detected data appear Gamma Distributed at 5% Significance Level					
38	**Detected data appear Gamma Distributed at 5% Significance Level**											
39												
40	**Gamma Statistics**											
41	k hat (MLE)					11.87	k star (bias corrected MLE)					9.376
42	Theta hat (MLE)					4.272	Theta star (bias corrected MLE)					5.409
43	nu hat (MLE)					332.4	nu star (bias corrected)					262.5
44	MLE Mean (bias corrected)					50.71	MLE Sd (bias corrected)					16.56
45							Approximate Chi Square Value (0.05)					226
46	Adjusted Level of Significance					0.0312	Adjusted Chi Square Value					221.5
47												
48	**Assuming Gamma Distribution**											
49	95% Approximate Gamma UCL (use when n>=50))					58.91	95% Adjusted Gamma UCL (use when n<50)					60.1
50												
51	**Lognormal GOF Test**											
52	Shapiro Wilk Test Statistic					0.925	**Shapiro Wilk Lognormal GOF Test**					
53	5% Shapiro Wilk Critical Value					0.874	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.172	**Lilliefors Lognormal GOF Test**					
55	5% Lilliefors Critical Value					0.226	Data appear Lognormal at 5% Significance Level					
56	**Data appear Lognormal at 5% Significance Level**											

57												
58	**Lognormal Statistics**											
59					Minimum of Logged Data	3.526				Mean of logged Data	3.884	
60					Maximum of Logged Data	4.443				SD of logged Data	0.298	
61												
62	**Assuming Lognormal Distribution**											
63					95% H-UCL	59.38				90% Chebyshev (MVUE) UCL	62.84	
64					95% Chebyshev (MVUE) UCL	68.37				97.5% Chebyshev (MVUE) UCL	76.05	
65					99% Chebyshev (MVUE) UCL	91.13						
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	57.77				95% Jackknife UCL	58.31	
72					95% Standard Bootstrap UCL	57.54				95% Bootstrap-t UCL	60.42	
73					95% Hall's Bootstrap UCL	60.51				95% Percentile Bootstrap UCL	57.93	
74					95% BCA Bootstrap UCL	58.79						
75					90% Chebyshev(Mean, Sd) UCL	63.58				95% Chebyshev(Mean, Sd) UCL	69.41	
76					97.5% Chebyshev(Mean, Sd) UCL	77.49				99% Chebyshev(Mean, Sd) UCL	93.38	
77												
78	**Suggested UCL to Use**											
79					95% Student's-t UCL	58.31						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												
86												
87	**Nickel**											
88												
89	**General Statistics**											
90					Total Number of Observations	14				Number of Distinct Observations	11	
91										Number of Missing Observations	0	
92					Minimum	62				Mean	142.4	
93					Maximum	200				Median	150	
94					SD	43.68				Std. Error of Mean	11.67	
95					Coefficient of Variation	0.307				Skewness	-0.894	
96												
97	**Normal GOF Test**											
98					Shapiro Wilk Test Statistic	0.876				**Shapiro Wilk GOF Test**		
99					5% Shapiro Wilk Critical Value	0.874				Data appear Normal at 5% Significance Level		
100					Lilliefors Test Statistic	0.284				**Lilliefors GOF Test**		
101					5% Lilliefors Critical Value	0.226				Data Not Normal at 5% Significance Level		
102	**Data appear Approximate Normal at 5% Significance Level**											
103												
104	**Assuming Normal Distribution**											
105	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
106					95% Student's-t UCL	163				95% Adjusted-CLT UCL (Chen-1995)	158.6	
107										95% Modified-t UCL (Johnson-1978)	162.6	
108												
109	**Gamma GOF Test**											
110					A-D Test Statistic	1.154				**Anderson-Darling Gamma GOF Test**		
111					5% A-D Critical Value	0.735				Data Not Gamma Distributed at 5% Significance Level		
112					K-S Test Statistic	0.32				**Kolmogorov-Smirnov Gamma GOF Test**		
113					5% K-S Critical Value	0.229				Data Not Gamma Distributed at 5% Significance Level		
114	**Data Not Gamma Distributed at 5% Significance Level**											

115												
116	**Gamma Statistics**											
117					k hat (MLE)	8.714			k star (bias corrected MLE)	6.894		
118					Theta hat (MLE)	16.34			Theta star (bias corrected MLE)	20.65		
119					nu hat (MLE)	244			nu star (bias corrected)	193		
120					MLE Mean (bias corrected)	142.4			MLE Sd (bias corrected)	54.22		
121									Approximate Chi Square Value (0.05)	161.9		
122					Adjusted Level of Significance	0.0312			Adjusted Chi Square Value	158.1		
123												
124	**Assuming Gamma Distribution**											
125				95% Approximate Gamma UCL (use when n>=50))		169.7			95% Adjusted Gamma UCL (use when n<50)	173.8		
126												
127	**Lognormal GOF Test**											
128					Shapiro Wilk Test Statistic	0.793			**Shapiro Wilk Lognormal GOF Test**			
129					5% Shapiro Wilk Critical Value	0.874			Data Not Lognormal at 5% Significance Level			
130					Lilliefors Test Statistic	0.328			**Lilliefors Lognormal GOF Test**			
131					5% Lilliefors Critical Value	0.226			Data Not Lognormal at 5% Significance Level			
132	**Data Not Lognormal at 5% Significance Level**											
133												
134	**Lognormal Statistics**											
135					Minimum of Logged Data	4.127			Mean of logged Data	4.9		
136					Maximum of Logged Data	5.298			SD of logged Data	0.383		
137												
138	**Assuming Lognormal Distribution**											
139					95% H-UCL	178.1			90% Chebyshev (MVUE) UCL	188.6		
140					95% Chebyshev (MVUE) UCL	208.9			97.5% Chebyshev (MVUE) UCL	237.1		
141					99% Chebyshev (MVUE) UCL	292.5						
142												
143	**Nonparametric Distribution Free UCL Statistics**											
144	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
145												
146	**Nonparametric Distribution Free UCLs**											
147					95% CLT UCL	161.6			95% Jackknife UCL	163		
148					95% Standard Bootstrap UCL	160.9			95% Bootstrap-t UCL	160.1		
149					95% Hall's Bootstrap UCL	158.6			95% Percentile Bootstrap UCL	160.9		
150					95% BCA Bootstrap UCL	158.2						
151					90% Chebyshev(Mean, Sd) UCL	177.4			95% Chebyshev(Mean, Sd) UCL	193.2		
152					97.5% Chebyshev(Mean, Sd) UCL	215.3			99% Chebyshev(Mean, Sd) UCL	258.5		
153												
154	**Suggested UCL to Use**											
155					95% Student's-t UCL	163						
156												
157	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
158	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
159												
160	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
161	Recommendations are based upon data size, data distribution, and skewness.											
162	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
163	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
164												
165	**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
166	**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**											
167												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	**C03.0320220609103747_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

Eurofins | Environment Testing ABN [illegible]

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

Company	AGON Environmental - Tunnel Spoil Testing
Address	Unit H76, 63-85 Turner St, Port Melbourne VIC 3207
Contact Name	Craig Trimbur David Lawson
Phone №	+61 400 826 907 (Craig) +61 490 411 004 (David)
Special Directions	Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with oter sample recipt documentation.
Purchase Order	
Quote ID №	Agon WGTP TST
Project №	JC0927
Project Name	WGTP-Tunnel Ref: 20220531043915-Eurofin-52
Project Manager	Craig Trimbur
EDD Format (ESdat, EQuIS etc)	Esdat
Sampler(s)	Will - Agon Martha - Agon
Handed over by	
Email for Invoice	finance@agonenviro.com.au LabReports.TST@agonenviro.com.au
Email for Results	LabReports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au Amrit.Kaur@agile-analytics.com.au

Required Turnaround Time (TAT) — Default will be 5 days if not ticked. ♦Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦
- ☐ 1 day♦
- ☐ 2 days♦
- ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

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

Containers — Change container type & size if necessary.

№	Client Sample ID	Sampled Date/Time	Matrix Solid (S) Water (W)	Spoil Sample Preparation	Suite WGTP-R1-TRH/ PAH/ Phenols/ OCP/ PCB/ VOC/ Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb,Hg, Ag, Sn, Mo, Se, Zn)/ Cr6+/ CN/ Total Fluoride/ pH	PFAS Extended Suite - 0.1- 5ug/kg	ASLP PH 5 - PFAS 0.01-0.05 ug/l	ASLP Reagent - PFAS 0.01-0.05ug/l	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	SX_OB_20220530_07_49_SS_Triplicate_EUF	30/05/2022	S	X	X	X	X	X								1	
2	SX_OB_20220530_07_56_SS_Primary_EUF	30/05/2022	S	X	X	X	X	X								1	
3	SX_OB_20220530_12_45_SS_Primary_EUF	30/05/2022	S	X	X	X	X	X								1	
4	SX_OB_20220530_12_56_SS_Primary_EUF	30/05/2022	S	X	X	X	X	X								1	
5	SX_OB_20220530_16_03_SS_Primary_EUF	30/05/2022	S	X	X	X	X	X								1	
6	SX_OB_20220530_16_04_SS_Duplicate_EUF	30/05/2022	S	X	X	X	X	X								1	
7	SX_OB_20220530_20_04_SS_Primary_EUF	30/05/2022	S	X	X	X	X	X								1	
8	SX_OB_20220531_00_11_SS_Primary_EUF	31/05/2022	S	X	X	X	X	X								1	
9	SX_OB_20220531_04_01_SS_Primary_EUF	31/05/2022	S	X	X	X	X	X								1	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
	Total Counts			[illegible]	9	[illegible]	[illegible]	[illegible]								[illegible]	

Method of Shipment	☑ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Signature	Date	Time

Laboratory Use Only						
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №

893162
Ty

CT 31/5/22-10.53am

Yes / No (No circled)
10.4
-0.1
10.3
Courier

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

Project Name: 20220531043915-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 893162
Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		Soil	M22-My0073868		X	X	X
2	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073869		X	X	X
3	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073870		X	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									
4	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073871		X	X	X
5	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073872		X	X	X
6	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		Soil	M22-My0073873		X	X	X
7	SX_OB_20220530_20_04_S	May 30, 2022		Soil	M22-My0073874		X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 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								
8	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073875		X	X	X
9	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073876		X	X	X
10	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073877	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									
11	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073878	X		X	
12	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073879	X		X	
13	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073880	X		X	
14	SX_OB_20220530_16_03_S	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073881	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								
15	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073882	X		X	
16	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073883	X		X	
17	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073884	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									
18	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073885	X		X	
19	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073886	X		X	
20	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073887	X		X	
21	SX_OB_20220530_12_45_S	May 30, 2022		AUS Leachate - Reagent	M22-My0073888	X		X	

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Project Name: 20220531043915-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 893162
Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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			Water					
22	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073889	X		X	
23	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073890	X		X	
24	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073891	X		X	

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NATA # 1261 Site # 25079

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NATA # 2377 Site # 2370

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Project Name: 20220531043915-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 893162
Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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									
25	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073892	X		X	
26	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073893	X		X	
27	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073894	X		X	
Test Counts						18	9	27	9

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

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

Report **893162-L**
Project name 20220531043915-Eurofin-52
Project ID JC0927
Received Date May 31, 2022

Client Sample ID			**SX_OB_20220530_07_49_SS_Triplicate_EUF**	**SX_OB_20220530_07_56_SS_Primary_EUF**	**SX_OB_20220530_12_45_SS_Primary_EUF**	**SX_OB_20220530_12_56_SS_Primary_EUF**
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-My0073877**	**M22-My0073878**	**M22-My0073879**	**M22-My0073880**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.0	5.0
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	69	79	62	67
13C5-PFPeA (surr.)	1	%	88	76	50	81
13C5-PFHxA (surr.)	1	%	78	80	53	87
13C4-PFHpA (surr.)	1	%	77	77	53	74
13C8-PFOA (surr.)	1	%	92	95	56	89
13C5-PFNA (surr.)	1	%	95	79	54	103
13C6-PFDA (surr.)	1	%	86	72	52	82
13C2-PFUnDA (surr.)	1	%	79	61	54	101
13C2-PFDoDA (surr.)	1	%	77	60	49	81
13C2-PFTeDA (surr.)	1	%	77	42	27	48

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-My0073877**	**M22-My0073878**	**M22-My0073879**	**M22-My0073880**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	47	26	16	88
D3-N-MeFOSA (surr.)	1	%	47	46	26	39
D5-N-EtFOSA (surr.)	1	%	12	21	13	45
D7-N-MeFOSE (surr.)	1	%	18	11	37	66
D9-N-EtFOSE (surr.)	1	%	14	15	40	57
D5-N-EtFOSAA (surr.)	1	%	64	55	32	97
D3-N-MeFOSAA (surr.)	1	%	58	48	39	81
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	%	125	93	53	87
18O2-PFHxS (surr.)	1	%	95	81	56	89
13C8-PFOS (surr.)	1	%	96	70	54	84
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	89	54	86	77
13C2-6:2 FTSA (surr.)	1	%	88	51	76	104
13C2-8:2 FTSA (surr.)	1	%	48	40	65	150
13C2-10:2 FTSA (surr.)	1	%	59	51	74	70
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_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-My0073881**	**M22-My0073882**	**M22-My0073883**	**M22-My0073884**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.0
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (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	%	61	61	59	101
13C5-PFPeA (surr.)	1	%	60	65	51	93
13C5-PFHxA (surr.)	1	%	51	54	52	93
13C4-PFHpA (surr.)	1	%	55	53	51	101
13C8-PFOA (surr.)	1	%	55	51	49	92
13C5-PFNA (surr.)	1	%	53	53	52	100
13C6-PFDA (surr.)	1	%	51	53	44	109
13C2-PFUnDA (surr.)	1	%	56	60	49	129
13C2-PFDoDA (surr.)	1	%	52	53	45	123
13C2-PFTeDA (surr.)	1	%	42	38	34	86
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	%	25	28	22	22
D3-N-MeFOSA (surr.)	1	%	32	43	39	20
D5-N-EtFOSA (surr.)	1	%	32	47	39	10
D7-N-MeFOSE (surr.)	1	%	12	13	17	21
D9-N-EtFOSE (surr.)	1	%	12	11	13	19
D5-N-EtFOSAA (surr.)	1	%	35	38	32	125
D3-N-MeFOSAA (surr.)	1	%	34	33	33	111

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M22-My0073881**	**M22-My0073882**	**M22-My0073883**	**M22-My0073884**
Date Sampled			May 30, 2022	May 30, 2022	May 30, 2022	May 31, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	51	54	51	66
18O2-PFHxS (surr.)	1	%	55	58	52	100
13C8-PFOS (surr.)	1	%	51	59	51	108
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	%	73	77	69	114
13C2-6:2 FTSA (surr.)	1	%	64	63	61	104
13C2-8:2 FTSA (surr.)	1	%	53	53	55	84
13C2-10:2 FTSA (surr.)	1	%	72	74	60	100
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_20220531_04_01_SS_Primary_EUF	SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_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-My0073885**	**M22-My0073886**	**M22-My0073887**	**M22-My0073888**
Date Sampled			May 31, 2022	May 30, 2022	May 30, 2022	May 30, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.0	7.1	7.1	7.1
pH (off)	0.1	pH Units	5.1	8.0	8.4	8.2

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF	SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_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-My0073885**	**M22-My0073886**	**M22-My0073887**	**M22-My0073888**
Date Sampled			**May 31, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 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	%	83	93	82	95
13C5-PFPeA (surr.)	1	%	90	82	81	89
13C5-PFHxA (surr.)	1	%	86	81	85	94
13C4-PFHpA (surr.)	1	%	82	81	79	96
13C8-PFOA (surr.)	1	%	91	89	96	96
13C5-PFNA (surr.)	1	%	86	95	89	91
13C6-PFDA (surr.)	1	%	74	98	99	105
13C2-PFUnDA (surr.)	1	%	67	129	114	119
13C2-PFDoDA (surr.)	1	%	61	125	95	113
13C2-PFTeDA (surr.)	1	%	41	77	65	58
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	%	48	63	116	14
D3-N-MeFOSA (surr.)	1	%	81	13	17	20
D5-N-EtFOSA (surr.)	1	%	24	16	11	19
D7-N-MeFOSE (surr.)	1	%	21	28	95	13
D9-N-EtFOSE (surr.)	1	%	14	21	76	23
D5-N-EtFOSAA (surr.)	1	%	54	122	100	108
D3-N-MeFOSAA (surr.)	1	%	63	116	110	104
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_20220531_04_01_SS_Primary_EUF	SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_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-My0073885	M22-My0073886	M22-My0073887	M22-My0073888
Date Sampled			May 31, 2022	May 30, 2022	May 30, 2022	May 30, 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	%	100	57	67	108
18O2-PFHxS (surr.)	1	%	86	94	81	102
13C8-PFOS (surr.)	1	%	80	104	109	112
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	%	50	100	89	103
13C2-6:2 FTSA (surr.)	1	%	49	110	70	86
13C2-8:2 FTSA (surr.)	1	%	45	79	73	56
13C2-10:2 FTSA (surr.)	1	%	49	93	71	89
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_20220530_12_56_SS_Primary_EUF	SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_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-My0073889	M22-My0073890	M22-My0073891	M22-My0073892
Date Sampled			May 30, 2022	May 30, 2022	May 30, 2022	May 30, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	7.1	7.1	7.1	7.1
pH (off)	0.1	pH Units	8.6	8.2	8.3	8.1
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

Client Sample ID			SX_OB_20220530_12_56_SS_Primary_EUF	SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_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-My0073889	M22-My0073890	M22-My0073891	M22-My0073892
Date Sampled			May 30, 2022	May 30, 2022	May 30, 2022	May 30, 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	%	72	87	81	78
13C5-PFPeA (surr.)	1	%	122	80	74	81
13C5-PFHxA (surr.)	1	%	85	82	75	77
13C4-PFHpA (surr.)	1	%	112	81	74	79
13C8-PFOA (surr.)	1	%	106	103	103	83
13C5-PFNA (surr.)	1	%	66	93	86	76
13C6-PFDA (surr.)	1	%	105	98	94	60
13C2-PFUnDA (surr.)	1	%	50	117	108	15
13C2-PFDoDA (surr.)	1	%	38	102	76	16
13C2-PFTeDA (surr.)	1	%	14	78	30	14
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	20	102	107	10
D3-N-MeFOSA (surr.)	1	%	13	17	37	14
D5-N-EtFOSA (surr.)	1	%	17	12	26	12
D7-N-MeFOSE (surr.)	1	%	13	81	95	13
D9-N-EtFOSE (surr.)	1	%	15	64	74	13
D5-N-EtFOSAA (surr.)	1	%	61	104	89	25
D3-N-MeFOSAA (surr.)	1	%	67	109	97	27
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	%	107	93	90	81
18O2-PFHxS (surr.)	1	%	90	96	82	75
13C8-PFOS (surr.)	1	%	75	108	104	56

Client Sample ID			SX_OB_20220530_12_56_SS_Primary_EUF	SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_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-My0073889**	**M22-My0073890**	**M22-My0073891**	**M22-My0073892**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 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	%	138	55	50	42
13C2-6:2 FTSA (surr.)	1	%	12	68	56	53
13C2-8:2 FTSA (surr.)	1	%	56	67	62	58
13C2-10:2 FTSA (surr.)	1	%	38	86	71	11
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_20220531_00_11_SS_Primary_EUF	SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			**AUS Leachate - Reagent Water**	**AUS Leachate - Reagent Water**
Eurofins Sample No.			**M22-My0073893**	**M22-My0073894**
Date Sampled			**May 31, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit		
AUS Leaching Procedure				
Leachate Fluid[C01]		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	7.1	7.1
pH (off)	0.1	pH Units	7.7	8.5
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01
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	%	81	92

Client Sample ID			SX_OB_20220531_00_11_SS_Primary_EUF	SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0073893	M22-My0073894
Date Sampled			May 31, 2022	May 31, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C5-PFPeA (surr.)	1	%	95	91
13C5-PFHxA (surr.)	1	%	75	89
13C4-PFHpA (surr.)	1	%	102	90
13C8-PFOA (surr.)	1	%	123	109
13C5-PFNA (surr.)	1	%	79	94
13C6-PFDA (surr.)	1	%	70	105
13C2-PFUnDA (surr.)	1	%	61	125
13C2-PFDoDA (surr.)	1	%	50	94
13C2-PFTeDA (surr.)	1	%	24	38
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	%	33	39
D3-N-MeFOSA (surr.)	1	%	11	14
D5-N-EtFOSA (surr.)	1	%	11	24
D7-N-MeFOSE (surr.)	1	%	19	23
D9-N-EtFOSE (surr.)	1	%	10	13
D5-N-EtFOSAA (surr.)	1	%	75	114
D3-N-MeFOSAA (surr.)	1	%	87	113
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	%	118	106
18O2-PFHxS (surr.)	1	%	116	98
13C8-PFOS (surr.)	1	%	78	119

Client Sample ID			SX_OB_20220531_00_11_SS_Primary_EUF	SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0073893	M22-My0073894
Date Sampled			May 31, 2022	May 31, 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	%	81	69
13C2-6:2 FTSA (surr.)	1	%	128	73
13C2-8:2 FTSA (surr.)	1	%	64	67
13C2-10:2 FTSA (surr.)	1	%	45	81
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	May 31, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (Leachate fluid)	Melbourne	May 31, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (off)	Melbourne	May 31, 2022	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Jun 06, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 31, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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Project Name: 20220531043915-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 893162
Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		Soil	M22-My0073868		X	X	X
2	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073869		X	X	X
3	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073870		X	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									
4	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073871		X	X	X
5	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073872		X	X	X
6	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		Soil	M22-My0073873		X	X	X
7	SX_OB_20220530_20_04_S	May 30, 2022		Soil	M22-My0073874		X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 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								
8	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073875		X	X	X
9	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073876		X	X	X
10	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073877	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									
11	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073878	X		X	
12	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073879	X		X	
13	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073880	X		X	
14	SX_OB_20220530_16_03_S	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073881	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									
	S_Primary_EUF								
15	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073882	X		X	
16	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073883	X		X	
17	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073884	X		X	

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Contact Name: - ALL SPOIL REPORTS WGTP

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									
18	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073885	X		X	
19	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073886	X		X	
20	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073887	X		X	
21	SX_OB_20220530_12_45_S	May 30, 2022		AUS Leachate - Reagent	M22-My0073888	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			Water					
22	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073889	X		X	
23	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073890	X		X	
24	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073891	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									
25	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073892	X		X	
26	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073893	X		X	
27	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073894	X		X	
Test Counts						18	9	27	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)	%	108			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	89			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	102			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	93			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	101			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	94			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	89			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	101			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	108			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	136			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	111			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	76			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	110			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	105			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	89			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	108			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	95			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	91			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	88			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	107			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	109			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	97			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	104			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	101			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	98			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	83			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	102			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	113			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	133			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	84			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-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0073890	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-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0073890	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-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0073890	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0073890	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0073890	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
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Sample Properties

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Agon Environmental Pty Ltd - VIC
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Fullarton
SA 5063

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Site Number 1254

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

Report **893162-S**
Project name 20220531043915-Eurofin-52
Project ID JC0927
Received Date May 31, 2022

Client Sample ID			**SX_OB_20220530_07_49_SS_Triplicate_EUF**	**SX_OB_20220530_07_56_SS_Primary_EUF**	**SX_OB_20220530_12_45_SS_Primary_EUF**	**SX_OB_20220530_12_56_SS_Primary_EUF**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Volatile Organics						
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	63	67	51	52
Toluene-d8 (surr.)	1	%	57	64	95	96
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	86	81	81	84
p-Terphenyl-d14 (surr.)	1	%	73	78	72	80
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	86	68	72	135
Tetrachloro-m-xylene (surr.)	1	%	86	92	86	89

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	86	68	72	135
Tetrachloro-m-xylene (surr.)	1	%	86	92	86	89
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	92	95	90	94
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	120	130	160
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.5	6.6	6.7	7.3
% Moisture	1	%	31	31	35	36
Heavy Metals						
Arsenic	2	mg/kg	77	40	35	39
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	110	100	150	150
Copper	5	mg/kg	57	47	67	72
Lead	5	mg/kg	8.3	5.8	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	85	150	190	200
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	61	94	140	160
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	83	81	83	80
13C5-PFPeA (surr.)	1	%	94	87	90	89
13C5-PFHxA (surr.)	1	%	93	94	98	87
13C4-PFHpA (surr.)	1	%	95	91	96	87
13C8-PFOA (surr.)	1	%	96	94	101	94
13C5-PFNA (surr.)	1	%	104	104	105	101
13C6-PFDA (surr.)	1	%	110	103	104	106
13C2-PFUnDA (surr.)	1	%	115	110	118	114
13C2-PFDoDA (surr.)	1	%	102	92	99	97
13C2-PFTeDA (surr.)	1	%	115	105	100	108
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	113	103	100	104
D3-N-MeFOSA (surr.)	1	%	134	128	111	124
D5-N-EtFOSA (surr.)	1	%	120	116	106	114
D7-N-MeFOSE (surr.)	1	%	93	91	83	88
D9-N-EtFOSE (surr.)	1	%	101	98	92	93
D5-N-EtFOSAA (surr.)	1	%	113	108	102	107
D3-N-MeFOSAA (surr.)	1	%	111	118	123	120

Client Sample ID			SX_OB_20220530_07_49_SS_Triplicate_EUF	SX_OB_20220530_07_56_SS_Primary_EUF	SX_OB_20220530_12_45_SS_Primary_EUF	SX_OB_20220530_12_56_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073868**	**M22-My0073869**	**M22-My0073870**	**M22-My0073871**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 30, 2022**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	93	95	92	90
18O2-PFHxS (surr.)	1	%	87	89	89	86
13C8-PFOS (surr.)	1	%	90	82	85	87
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	101	112	109	94
13C2-6:2 FTSA (surr.)	1	%	87	83	95	79
13C2-8:2 FTSA (surr.)	1	%	122	120	105	119
13C2-10:2 FTSA (surr.)	1	%	107	103	108	96
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Volatile Organics						
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	83	78	74	54
Toluene-d8 (surr.)	1	%	86	77	67	54
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	85	84	92	84
p-Terphenyl-d14 (surr.)	1	%	75	74	82	74

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	135	72	101	90
Tetrachloro-m-xylene (surr.)	1	%	87	87	92	84
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	135	72	101	90
Tetrachloro-m-xylene (surr.)	1	%	87	87	92	84
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	90	91	98	88
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	140
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.5	6.9	6.7	6.7
% Moisture	1	%	30	30	31	33
Heavy Metals						
Arsenic	2	mg/kg	85	52	50	35
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	130	110	150	130
Copper	5	mg/kg	68	58	73	40
Lead	5	mg/kg	5.2	5.1	5.2	7.8
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	160	150	180	82
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	100	120	35
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	77	86	76	75
13C5-PFPeA (surr.)	1	%	82	94	81	94
13C5-PFHxA (surr.)	1	%	87	96	85	84

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			**May 30, 2022**	**May 30, 2022**	**May 30, 2022**	**May 31, 2022**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	86	94	84	78
13C8-PFOA (surr.)	1	%	91	97	86	91
13C5-PFNA (surr.)	1	%	95	105	96	92
13C6-PFDA (surr.)	1	%	101	113	96	100
13C2-PFUnDA (surr.)	1	%	114	123	103	100
13C2-PFDoDA (surr.)	1	%	92	100	89	91
13C2-PFTeDA (surr.)	1	%	106	115	106	103
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	103	115	99	101
D3-N-MeFOSA (surr.)	1	%	122	133	118	117
D5-N-EtFOSA (surr.)	1	%	114	124	106	106
D7-N-MeFOSE (surr.)	1	%	83	93	80	83
D9-N-EtFOSE (surr.)	1	%	92	96	86	86
D5-N-EtFOSAA (surr.)	1	%	106	120	102	103
D3-N-MeFOSAA (surr.)	1	%	120	138	121	114
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	85	98	89	84
18O2-PFHxS (surr.)	1	%	86	89	81	84
13C8-PFOS (surr.)	1	%	85	91	86	85
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	93	104	104	102
13C2-6:2 FTSA (surr.)	1	%	79	96	87	87

Client Sample ID			SX_OB_20220530_16_03_SS_Primary_EUF	SX_OB_20220530_16_04_SS_Duplicate_EUF	SX_OB_20220530_20_04_SS_Primary_EUF	SX_OB_20220531_00_11_SS_Primary_EUF
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M22-My0073872**	**M22-My0073873**	**M22-My0073874**	**M22-My0073875**
Date Sampled			May 30, 2022	May 30, 2022	May 30, 2022	May 31, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-8:2 FTSA (surr.)	1	%	118	119	111	110
13C2-10:2 FTSA (surr.)	1	%	109	121	112	108
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			**Soil**
Eurofins Sample No.			**M22-My0073876**
Date Sampled			May 31, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Volatile Organics			
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			**Soil**
Eurofins Sample No.			**M22-My0073876**
Date Sampled			**May 31, 2022**
Test/Reference	LOR	Unit	
Volatile Organics			
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	82
Toluene-d8 (surr.)	1	%	74

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22-My0073876
Date Sampled			May 31, 2022
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	82
p-Terphenyl-d14 (surr.)	1	%	74
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22-My0073876
Date Sampled			May 31, 2022
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Dibutylchlorendate (surr.)	1	%	131
Tetrachloro-m-xylene (surr.)	1	%	86
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	131
Tetrachloro-m-xylene (surr.)	1	%	86
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1.0	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	91
Total Non-Halogenated Phenol*	20	mg/kg	< 20
Chromium (hexavalent)	1	mg/kg	< 1
Cyanide (total)	5	mg/kg	< 5
Fluoride (Total)	100	mg/kg	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.7
% Moisture	1	%	31

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22-My0073876
Date Sampled			May 31, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	34
Cadmium	1	mg/kg	< 1
Chromium	5	mg/kg	120
Copper	5	mg/kg	62
Lead	5	mg/kg	< 5
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	180
Selenium	5	mg/kg	< 5
Silver	2	mg/kg	< 2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	120
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	78
13C5-PFPeA (surr.)	1	%	82
13C5-PFHxA (surr.)	1	%	91
13C4-PFHpA (surr.)	1	%	86
13C8-PFOA (surr.)	1	%	89
13C5-PFNA (surr.)	1	%	97
13C6-PFDA (surr.)	1	%	103
13C2-PFUnDA (surr.)	1	%	106
13C2-PFDoDA (surr.)	1	%	91
13C2-PFTeDA (surr.)	1	%	107
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	105
D3-N-MeFOSA (surr.)	1	%	119

Client Sample ID			SX_OB_20220531_04_01_SS_Primary_EUF
Sample Matrix			**Soil**
Eurofins Sample No.			**M22-My0073876**
Date Sampled			**May 31, 2022**
Test/Reference	LOR	Unit	
Perfluoroalkyl sulfonamido substances			
D5-N-EtFOSA (surr.)	1	%	103
D7-N-MeFOSE (surr.)	1	%	84
D9-N-EtFOSE (surr.)	1	%	91
D5-N-EtFOSAA (surr.)	1	%	104
D3-N-MeFOSAA (surr.)	1	%	109
Perfluoroalkyl sulfonic acids (PFSAs)			
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	90
18O2-PFHxS (surr.)	1	%	81
13C8-PFOS (surr.)	1	%	87
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	96
13C2-6:2 FTSA (surr.)	1	%	82
13C2-8:2 FTSA (surr.)	1	%	120
13C2-10:2 FTSA (surr.)	1	%	98
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
IWRG 621 WGTP Suite			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Melbourne	May 31, 2022	7 Days
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Volatile Organics	Melbourne	May 31, 2022	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Polycyclic Aromatic Hydrocarbons	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Polychlorinated Biphenyls	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)			
Phenols (Halogenated)	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	May 31, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Chromium (hexavalent)	Melbourne	May 31, 2022	28 Days
- Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection			
Cyanide (total)	Melbourne	May 31, 2022	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Fluoride (Total)	Melbourne	Jun 01, 2022	28 Days
- Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC			
- Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	May 31, 2022	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Metals IWRG 621 : Metals M12	Melbourne	May 31, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Melbourne	May 31, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 31, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 31, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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Project ID: JC0927

Order No.:
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Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		Soil	M22-My0073868		X	X	X
2	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073869		X	X	X
3	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073870		X	X	X

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Project Name: 20220531043915-Eurofin-52
Project ID: JC0927

Order No.:
Report #: 893162
Phone: 08 8338 1009
Fax:

Received: May 31, 2022 10:53 AM
Due: Jun 7, 2022
Priority: 5 Day
Contact Name: - ALL SPOIL REPORTS WGTP

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	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									
4	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073871		X	X	X
5	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		Soil	M22-My0073872		X	X	X
6	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		Soil	M22-My0073873		X	X	X
7	SX_OB_20220530_20_04_S	May 30, 2022		Soil	M22-My0073874		X	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									
	S_Primary_EUF								
8	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073875		X	X	X
9	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		Soil	M22-My0073876		X	X	X
10	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073877	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									
11	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073878	X		X	
12	SX_OB_20220530_12_45_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073879	X		X	
13	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073880	X		X	
14	SX_OB_20220530_16_03_S	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073881	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									
	S_Primary_EUF								
15	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073882	X		X	
16	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - pH 5.0	M22-My0073883	X		X	
17	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073884	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									
18	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - pH 5.0	M22-My0073885	X		X	
19	SX_OB_20220530_07_49_SS_Triplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073886	X		X	
20	SX_OB_20220530_07_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073887	X		X	
21	SX_OB_20220530_12_45_S	May 30, 2022		AUS Leachate - Reagent	M22-My0073888	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			Water					
22	SX_OB_20220530_12_56_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073889	X		X	
23	SX_OB_20220530_16_03_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073890	X		X	
24	SX_OB_20220530_16_04_SS_Duplicate_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073891	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									
25	SX_OB_20220530_20_04_SS_Primary_EUF	May 30, 2022		AUS Leachate - Reagent Water	M22-My0073892	X		X	
26	SX_OB_20220531_00_11_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073893	X		X	
27	SX_OB_20220531_04_01_SS_Primary_EUF	May 31, 2022		AUS Leachate - Reagent Water	M22-My0073894	X		X	
Test Counts						18	9	27	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							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Volatile Organics							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	

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

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	83			70-130	Pass	
TRH C10-C14	%	118			70-130	Pass	
Naphthalene	%	111			70-130	Pass	
TRH C6-C10	%	121			70-130	Pass	
TRH >C10-C16	%	124			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	93			70-130	Pass	
1.1.1-Trichloroethane	%	77			70-130	Pass	
1.2-Dichlorobenzene	%	116			70-130	Pass	
1.2-Dichloroethane	%	123			70-130	Pass	
Benzene	%	112			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	120			70-130	Pass	
Toluene	%	117			70-130	Pass	
Trichloroethene	%	100			70-130	Pass	
Xylenes - Total*	%	117			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	107			70-130	Pass	
Acenaphthylene	%	119			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	106			70-130	Pass	
Benzo(a)pyrene	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	%	94			70-130	Pass	
Benzo(g.h.i)perylene	%	103			70-130	Pass	
Benzo(k)fluoranthene	%	110			70-130	Pass	
Chrysene	%	97			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	109			70-130	Pass	
Fluorene	%	129			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	99			70-130	Pass	
Naphthalene	%	113			70-130	Pass	
Phenanthrene	%	109			70-130	Pass	
Pyrene	%	111			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	80			70-130	Pass	
4.4'-DDD	%	116			70-130	Pass	
4.4'-DDE	%	91			70-130	Pass	
4.4'-DDT	%	109			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	82			70-130	Pass	
b-HCH	%	90			70-130	Pass	
d-HCH	%	96			70-130	Pass	
Dieldrin	%	84			70-130	Pass	
Endosulfan I	%	81			70-130	Pass	
Endosulfan II	%	79			70-130	Pass	
Endosulfan sulphate	%	84			70-130	Pass	
Endrin	%	86			70-130	Pass	
Endrin aldehyde	%	120			70-130	Pass	
Endrin ketone	%	85			70-130	Pass	
g-HCH (Lindane)	%	109			70-130	Pass	
Heptachlor	%	91			70-130	Pass	
Heptachlor epoxide	%	81			70-130	Pass	
Hexachlorobenzene	%	83			70-130	Pass	
Methoxychlor	%	117			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	97			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	102			25-140	Pass	
2.4-Dichlorophenol	%	108			25-140	Pass	
2.4.5-Trichlorophenol	%	91			25-140	Pass	
2.4.6-Trichlorophenol	%	106			25-140	Pass	
2.6-Dichlorophenol	%	104			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	108			25-140	Pass	
Pentachlorophenol	%	96			25-140	Pass	
Tetrachlorophenols - Total	%	108			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Methyl-4.6-dinitrophenol	%	80			25-140	Pass	
2-Nitrophenol	%	102			25-140	Pass	
2.4-Dimethylphenol	%	105			25-140	Pass	
2.4-Dinitrophenol	%	66			25-140	Pass	
2-Methylphenol (o-Cresol)	%	96			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	127			25-140	Pass	
4-Nitrophenol	%	104			25-140	Pass	
Dinoseb	%	92			25-140	Pass	
Phenol	%	103			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	91			70-130	Pass	
Cyanide (total)	%	109			70-130	Pass	
Fluoride (Total)	%	93			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	110			80-120	Pass	
Cadmium	%	115			80-120	Pass	
Chromium	%	115			80-120	Pass	
Copper	%	113			80-120	Pass	
Lead	%	113			80-120	Pass	
Mercury	%	116			80-120	Pass	
Molybdenum	%	109			80-120	Pass	
Nickel	%	112			80-120	Pass	
Selenium	%	115			80-120	Pass	
Silver	%	113			80-120	Pass	
Tin	%	112			80-120	Pass	
Zinc	%	111			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	122			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	114			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	112			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	114			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	111			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	119			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	113			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	120			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	124			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	130			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	126			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	105			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	121			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	117			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	125			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	126			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	120			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	130			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	117			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	117			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	113			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	108			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	117			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	113			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	124			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	128			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	119			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)			%	114			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	139			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	108			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	N22-Jn0001326	NCP	%	85			70-130	Pass	
TRH C10-C14	M22-My0067544	NCP	%	120			70-130	Pass	
Naphthalene	N22-Jn0001326	NCP	%	102			70-130	Pass	
TRH C6-C10	N22-Jn0001326	NCP	%	85			70-130	Pass	
TRH >C10-C16	M22-My0067544	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	N22-Jn0001326	NCP	%	80			70-130	Pass	
1.1.1-Trichloroethane	N22-Jn0001326	NCP	%	75			70-130	Pass	
1.2-Dichlorobenzene	N22-Jn0001326	NCP	%	99			70-130	Pass	
1.2-Dichloroethane	N22-Jn0001326	NCP	%	91			70-130	Pass	
Benzene	N22-Jn0001326	NCP	%	79			70-130	Pass	
Ethylbenzene	N22-Jn0001326	NCP	%	99			70-130	Pass	
m&p-Xylenes	N22-Jn0001326	NCP	%	100			70-130	Pass	
o-Xylene	N22-Jn0001326	NCP	%	103			70-130	Pass	
Toluene	N22-Jn0001326	NCP	%	85			70-130	Pass	
Trichloroethene	N22-Jn0001326	NCP	%	95			70-130	Pass	
Xylenes - Total*	N22-Jn0001326	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M22-My0071057	NCP	%	91			70-130	Pass	
Acenaphthylene	M22-My0071057	NCP	%	98			70-130	Pass	
Anthracene	M22-My0071057	NCP	%	85			70-130	Pass	
Benz(a)anthracene	M22-My0071057	NCP	%	81			70-130	Pass	
Benzo(a)pyrene	M22-My0071057	NCP	%	86			70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0071057	NCP	%	72			70-130	Pass	
Benzo(g.h.i)perylene	M22-My0071057	NCP	%	89			70-130	Pass	
Benzo(k)fluoranthene	M22-My0071057	NCP	%	90			70-130	Pass	
Chrysene	M22-My0071057	NCP	%	79			70-130	Pass	
Dibenz(a.h)anthracene	M22-My0071057	NCP	%	78			70-130	Pass	
Fluoranthene	M22-My0071057	NCP	%	82			70-130	Pass	
Fluorene	M22-My0071057	NCP	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-My0071057	NCP	%	72			70-130	Pass	
Naphthalene	M22-My0071057	NCP	%	100			70-130	Pass	
Phenanthrene	M22-My0071057	NCP	%	83			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M22-My0071057	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M22-My0071066	NCP	%	83			70-130	Pass	
4.4'-DDD	M22-My0071066	NCP	%	80			70-130	Pass	
4.4'-DDE	M22-My0071066	NCP	%	80			70-130	Pass	
4.4'-DDT	M22-My0071066	NCP	%	84			70-130	Pass	
a-HCH	M22-My0071066	NCP	%	94			70-130	Pass	
Aldrin	M22-My0071066	NCP	%	84			70-130	Pass	
b-HCH	M22-My0071066	NCP	%	76			70-130	Pass	
d-HCH	M22-My0071066	NCP	%	77			70-130	Pass	
Dieldrin	M22-My0071066	NCP	%	87			70-130	Pass	
Endosulfan I	M22-My0071066	NCP	%	92			70-130	Pass	
Endosulfan II	M22-My0071066	NCP	%	71			70-130	Pass	
Endosulfan sulphate	M22-My0071066	NCP	%	87			70-130	Pass	
Endrin	M22-My0071066	NCP	%	93			70-130	Pass	
Endrin aldehyde	M22-My0071066	NCP	%	74			70-130	Pass	
Endrin ketone	M22-My0071066	NCP	%	77			70-130	Pass	
g-HCH (Lindane)	M22-My0071066	NCP	%	95			70-130	Pass	
Heptachlor	M22-My0071066	NCP	%	88			70-130	Pass	
Heptachlor epoxide	M22-My0071066	NCP	%	78			70-130	Pass	
Hexachlorobenzene	M22-My0071066	NCP	%	88			70-130	Pass	
Methoxychlor	M22-My0071066	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M22-My0071057	NCP	%	101			30-130	Pass	
2.4-Dichlorophenol	M22-My0071057	NCP	%	108			30-130	Pass	
2.4.5-Trichlorophenol	M22-My0071057	NCP	%	82			30-130	Pass	
2.4.6-Trichlorophenol	M22-My0071057	NCP	%	107			30-130	Pass	
2.6-Dichlorophenol	M22-My0071057	NCP	%	102			30-130	Pass	
4-Chloro-3-methylphenol	M22-My0071057	NCP	%	111			30-130	Pass	
Pentachlorophenol	M22-My0071057	NCP	%	82			30-130	Pass	
Tetrachlorophenols - Total	M22-My0071057	NCP	%	105			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	M22-My0071057	NCP	%	35			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M22-My0071057	NCP	%	57			30-130	Pass	
2-Nitrophenol	M22-My0071057	NCP	%	97			30-130	Pass	
2.4-Dimethylphenol	M22-My0071057	NCP	%	114			30-130	Pass	
2.4-Dinitrophenol	M22-My0071057	NCP	%	40			30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0071057	NCP	%	98			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0071057	NCP	%	103			30-130	Pass	
4-Nitrophenol	M22-My0071057	NCP	%	88			30-130	Pass	
Dinoseb	M22-My0071057	NCP	%	76			30-130	Pass	
Phenol	M22-My0071057	NCP	%	109			30-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	M22-My0073818	NCP	%	89			70-130	Pass	
Fluoride (Total)	M22-My0075894	NCP	%	99			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M22-My0075534	NCP	%	99			75-125	Pass	
Cadmium	M22-My0075534	NCP	%	113			75-125	Pass	
Chromium	M22-My0075534	NCP	%	103			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	M22-My0075534	NCP	%	105			75-125	Pass	
Lead	M22-My0075700	NCP	%	118			75-125	Pass	
Mercury	M22-My0075534	NCP	%	123			75-125	Pass	
Molybdenum	M22-My0075534	NCP	%	112			75-125	Pass	
Nickel	M22-My0075534	NCP	%	105			75-125	Pass	
Selenium	M22-My0075534	NCP	%	102			75-125	Pass	
Silver	M22-My0075534	NCP	%	113			75-125	Pass	
Tin	M22-My0075700	NCP	%	115			75-125	Pass	
Zinc	M22-My0075534	NCP	%	120			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M22-My0075245	NCP	%	116			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0075245	NCP	%	111			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0075245	NCP	%	113			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0075245	NCP	%	118			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0075245	NCP	%	108			50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0075245	NCP	%	115			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0075245	NCP	%	113			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0075245	NCP	%	106			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0075245	NCP	%	116			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0075245	NCP	%	118			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0075245	NCP	%	122			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M22-My0075245	NCP	%	104			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0075245	NCP	%	116			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0075245	NCP	%	115			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0075245	NCP	%	115			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0075245	NCP	%	117			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0075245	NCP	%	118			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0075245	NCP	%	117			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-My0075245	NCP	%	107			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0075245	NCP	%	113			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0075245	NCP	%	107			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0075245	NCP	%	109			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0075245	NCP	%	111			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0075245	NCP	%	75			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0075245	NCP	%	110			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0075245	NCP	%	119			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0075245	NCP	%	131			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0075245	NCP	%	101			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0075245	NCP	%	148			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0075245	NCP	%	100			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M22-My0068475	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-My0068475	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-My0068475	NCP	mg/kg	50	50	1.0	30%	Pass	
TRH >C10-C16	M22-My0068475	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-My0068475	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-My0068475	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M22-My0068884	NCP	mg/kg	0.6	< 0.5	28	30%	Pass	
Benzo(a)pyrene	M22-My0068884	NCP	mg/kg	1.0	0.7	33	30%	Fail	Q15
Benzo(b&j)fluoranthene	M22-My0068884	NCP	mg/kg	0.6	0.5	9.0	30%	Pass	
Benzo(g.h.i)perylene	M22-My0068884	NCP	mg/kg	0.8	0.5	39	30%	Fail	Q15
Benzo(k)fluoranthene	M22-My0068884	NCP	mg/kg	0.8	0.6	29	30%	Pass	
Chrysene	M22-My0068884	NCP	mg/kg	0.7	0.5	30	30%	Pass	
Dibenz(a.h)anthracene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M22-My0068884	NCP	mg/kg	0.8	0.6	22	30%	Pass	
Fluorene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M22-My0068884	NCP	mg/kg	0.6	< 0.5	36	30%	Fail	Q15
Naphthalene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M22-My0068884	NCP	mg/kg	1.0	0.7	29	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endrin aldehyde	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M22-My0068884	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	M22-My0068884	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M22-My0068884	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M22-My0068884	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M22-My0068884	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M22-My0068884	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M22-My0068884	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M22-My0068884	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M22-My0068884	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M22-My0068884	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M22-My0068884	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M22-My0068884	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0068884	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M22-My0068884	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M22-My0068884	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M22-My0068884	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	M22-My0075558	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0075463	NCP	pH Units	6.3	6.4	pass	30%	Pass	
% Moisture	M22-My0073810	NCP	%	15	14	7.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M22-My0075534	NCP	mg/kg	7.6	7.6	<1	30%	Pass	
Cadmium	M22-My0075534	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M22-My0075534	NCP	mg/kg	39	40	2.0	30%	Pass	
Copper	M22-My0075534	NCP	mg/kg	35	36	4.0	30%	Pass	
Lead	M22-My0075534	NCP	mg/kg	96	98	2.0	30%	Pass	
Mercury	M22-My0075534	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Molybdenum	M22-My0075534	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M22-My0075534	NCP	mg/kg	36	38	5.0	30%	Pass	
Selenium	M22-My0075534	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M22-My0075534	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M22-My0075534	NCP	mg/kg	140	140	3.0	30%	Pass	
Zinc	M22-My0075534	NCP	mg/kg	99	100	4.0	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0075242	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0075242	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0075242	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0075242	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Fluoride (Total)	M22-My0073869	CP	mg/kg	120	150	19	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M22-My0073872	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M22-My0073874	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-My0073874	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	M22-My0073874	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Carbon Tetrachloride	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	M22-My0073874	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	M22-My0073874	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	M22-My0073874	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	M22-My0073874	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M22-My0073874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total*	M22-My0073874	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Fluoride (Total)	M22-My0073874	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS
Caitlin Breeze	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Metal
Linda Chouman	Senior Analyst-Sample Properties
Joseph Edouard	Senior Analyst-Organic
Edward Lee	Senior Analyst-Organic
Vivian Wang	Senior Analyst-Volatile
Emily Rosenberg	Senior Analyst-Metal
Scott Beddoes	Senior Analyst-Inorganic
Carroll Lee	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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

CHAIN OF CUSTODY DOCUMENTATION

Australian Laboratory Services Pty Ltd

CLIENT: Agon Evironmental
SAMPLER: Will — Will - Agon, Martha - Agon
ADDRESS / OFFICE: Melbourne
MOBILE 1: +61 400 826 907 (Craig Trimbur)
PROJECT MANAGER (PM): Craig Trimbur
MOBILE 2: +61 490 411 004 (David Lawson)
PROJECT ID: JC0827
EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au
SITE: 20220531044306 ALS 52 — P.O. NO.:
RESULTS REQUIRED (Date): 5 days — QUOTE NO.: ME-150-19 WGTP
EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au

FOR LABORATORY USE ONLY
Custody seal intact (if used): Yes / No / N/A
Temperature on receipt: °C
Cooling Method: Ice / Ice Pack / None
Chilled: Yes / No

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

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

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:
1,10	SX_OB_20220530_07_48_SS_Primary_ALS	S	30/05/2022	07:48	Bucket	1	X	X	X	X	X	
2,11	SX_OB_20220530_07_49_SS_Duplicate_ALS	S	30/05/2022	07:49	Bucket	1	X	X	X	X	X	
3,12	SX_OB_20220530_12_45_SS_Primary_ALS	S	30/05/2022	12:45	Bucket	1	X	X	X	X	X	
4,13	SX_OB_20220530_12_55_SS_Primary_ALS	S	30/05/2022	12:55	Bucket	1	X	X	X	X	X	
5,14	SX_OB_20220530_15_49_SS_Primary_ALS	S	30/05/2022	15:49	Bucket	1	X	X	X	X	X	
6,15	SX_OB_20220530_16_05_SS_Triplicate_ALS	S	30/05/2022	16:05	Bucket	1	X	X	X	X	X	
7,16	SX_OB_20220530_20_08_SS_Primary_ALS	S	30/05/2022	20:08	Bucket	1	X	X	X	X	X	
8,17	SX_OB_20220531_00_01_SS_Primary_ALS	S	31/05/2022	00:01	Bucket	1	X	X	X	X	X	
9,18	SX_OB_20220531_04_08_SS_Primary_ALS	S	31/05/2022	04:08	Bucket	1	X	X	X	X	X	

Environmental Division
Melbourne
Work Order Reference
EM2210112

Telephone : + 61-3-8549 9600

RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name:	Date:	Name: [illegible]	Date: 31/5	Con' Note No:
Of:	Time:	Of: [illegible]	Time: 9-40	
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	: **EM2210112**	Page	: 1 of 27
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	: 31-May-2022 09:40
Order number	: ----	Date Analysis Commenced	: 31-May-2022
C-O-C number	: 20220531044306-ALS-52	Issue Date	: 07-Jun-2022 16:30
Sampler	: Martha, Will		
Site	: 20220531044306-ALS-52		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 18		
No. of samples analysed	: 18		

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*
Andrew Lu	VOC Section Supervisor	Melbourne Inorganics, Springvale, VIC
Dilani Fernando	Laboratory Coordinator	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 Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

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

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

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

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

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

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

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EG005-T : EM2209872 #4 Poor spike recovery for Zinc due to sample matrix. Confirmed by re-digestion and re-analysis.
- EG005-T : EM2210112 #8 Poor spike recovery for 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.

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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	%		**108**	**126**	**111**	**104**	**116**
13C8-PFOA	----	0.02	%		**100**	**112**	**105**	**103**	**104**

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	----
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	----
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	--------
					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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	----
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	----
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	--------
					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	----
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	%		**104**	**109**	**106**	**109**	----
13C8-PFOA	----	0.02	%		**105**	**108**	**102**	**106**	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-010	EM2210112-011	EM2210112-012	EM2210112-013	EM2210112-014
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-010	EM2210112-011	EM2210112-012	EM2210112-013	EM2210112-014
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**92.3**	**111**	**108**	**104**	**99.1**
13C8-PFOA	----	0.02	%		**95.2**	**99.9**	**104**	**92.6**	**96.0**

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	----
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	----
					EM2210112-015	EM2210112-016	EM2210112-017	EM2210112-018	--------
					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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	----
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	----
					EM2210112-015	EM2210112-016	EM2210112-017	EM2210112-018	--------
					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	----
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	%		**97.7**	**93.1**	**98.7**	**102**	----
13C8-PFOA	----	0.02	%		**92.8**	**100**	**97.5**	**103**	----

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		7.7	7.7	7.6	8.2	7.7
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		29.5	29.0	33.7	33.5	31.2
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		64	61	35	38	34
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg		104	79	109	106	74
Copper	7440-50-8	5	mg/kg		31	31	69	65	40
Lead	7439-92-1	5	mg/kg		8	5	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg		<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg		63	62	159	168	126
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		37	47	134	117	66
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		160	240	170	160	190
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		7.6	6.8	8.1	9.2	8.3
After HCl pH	----	0.1	pH Unit		1.2	1.2	1.2	1.2	1.1
Extraction Fluid pH	----	0.1	pH Unit		5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit		5.1	5.1	5.1	5.1	5.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
			Sampling date / time		30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	**EM2210112-002**	**EM2210112-003**	**EM2210112-004**	**EM2210112-005**
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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_20220530_07_48_SS_Primary_ALS	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-001	EM2210112-002	EM2210112-003	EM2210112-004	EM2210112-005
					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	%		**91.6**	**100**	**95.6**	**104**	**108**
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**100**	**66.3**	**99.5**	**93.3**	**95.2**
Toluene-D8	2037-26-5	0.1	%		**88.7**	**60.4**	**87.8**	**86.5**	**85.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**107**	**75.9**	**107**	**103**	**105**
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		**87.8**	**99.4**	**93.2**	**102**	**108**
2-Chlorophenol-D4	93951-73-6	0.025	%		**99.7**	**113**	**107**	**117**	**125**
2.4.6-Tribromophenol	118-79-6	0.025	%		**72.6**	**83.1**	**73.1**	**79.2**	**81.7**
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		**84.5**	**95.7**	**89.0**	**98.6**	**108**
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		**84.4**	**95.3**	**90.7**	**98.2**	**105**
2-Fluorobiphenyl	321-60-8	0.025	%		**93.3**	**105**	**96.8**	**104**	**112**
Anthracene-d10	1719-06-8	0.025	%		**89.3**	**100**	**94.3**	**102**	**109**
4-Terphenyl-d14	1718-51-0	0.025	%		**88.8**	**99.9**	**94.1**	**104**	**109**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**122**	**101**	**114**	**105**	**115**
13C8-PFOA	----	0.0002	%		**110**	**109**	**125**	**113**	**109**

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		7.8	7.8	8.5	7.6	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		28.1	32.3	31.5	31.3	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		52	48	37	71	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	----
Chromium	7440-47-3	5	mg/kg		89	96	105	74	----
Copper	7440-50-8	5	mg/kg		52	56	57	37	----
Lead	7439-92-1	5	mg/kg		<5	<5	<5	6	----
Molybdenum	7439-98-7	5	mg/kg		<5	<5	<5	<5	----
Nickel	7440-02-0	5	mg/kg		150	150	184	52	----
Selenium	7782-49-2	5	mg/kg		<5	<5	<5	<5	----
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	----
Tin	7440-31-5	10	mg/kg		<10	<10	<10	<10	----
Zinc	7440-66-6	5	mg/kg		81	95	86	38	----
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		200	180	180	170	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit		8.4	8.3	8.9	7.6	----
After HCl pH	----	0.1	pH Unit		1.1	1.1	1.2	1.1	----
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		----	----	----	----	9.3
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons									
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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)									
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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					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	----
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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					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	----
^ **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	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg		<5	<5	<5	<5	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg		<5.0	<5.0	<5.0	<5.0	----
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									

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_16_05_SS_Triplicate_ALS	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	SX_OB_20220530_07_48_SS_Primary_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	30-May-2022 00:00
					EM2210112-006	EM2210112-007	EM2210112-008	EM2210112-009	EM2210112-010
					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	----
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	%		**93.0**	**91.4**	**104**	**94.9**	----
EP074S: VOC Surrogates (Ultra-Trace)									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**74.3**	**92.9**	**79.5**	**95.8**	----
Toluene-D8	2037-26-5	0.1	%		**55.3**	**82.8**	**69.5**	**86.2**	----
4-Bromofluorobenzene	460-00-4	0.1	%		**78.3**	**102**	**89.3**	**101**	----
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%		**91.6**	**88.7**	**97.4**	**96.2**	----
2-Chlorophenol-D4	93951-73-6	0.025	%		**104**	**99.6**	**112**	**109**	----
2.4.6-Tribromophenol	118-79-6	0.025	%		**74.9**	**63.6**	**73.5**	**73.7**	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%		**87.4**	**82.6**	**94.2**	**92.3**	----
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%		**87.9**	**82.2**	**93.8**	**91.0**	----
2-Fluorobiphenyl	321-60-8	0.025	%		**95.3**	**90.3**	**102**	**100**	----
Anthracene-d10	1719-06-8	0.025	%		**93.0**	**87.7**	**99.1**	**95.8**	----
4-Terphenyl-d14	1718-51-0	0.025	%		**92.6**	**87.2**	**100**	**95.6**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**99.4**	**119**	**102**	**110**	----
13C8-PFOA	----	0.0002	%		**108**	**109**	**104**	**124**	----

Analytical Results

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

Compound	CAS Number	LOR	Unit	Sample ID	SX_OB_20220530_07_49_SS_Duplicate_ALS	SX_OB_20220530_12_45_SS_Primary_ALS	SX_OB_20220530_12_55_SS_Primary_ALS	SX_OB_20220530_15_49_SS_Primary_ALS	SX_OB_20220530_16_05_SS_Triplicate_ALS
				Sampling date / time	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00	30-May-2022 00:00
					EM2210112-011	**EM2210112-012**	**EM2210112-013**	**EM2210112-014**	**EM2210112-015**
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit		**9.1**	**9.0**	**9.7**	**9.3**	**9.5**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SX_OB_20220530_20_08_SS_Primary_ALS	SX_OB_20220531_00_01_SS_Primary_ALS	SX_OB_20220531_04_08_SS_Primary_ALS	----	----
			Sampling date / time	30-May-2022 00:00	31-May-2022 00:00	31-May-2022 00:00	----	----
Compound	CAS Number	LOR	Unit	EM2210112-016	EM2210112-017	EM2210112-018	--------	--------
				Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**9.4**	**9.6**	**8.8**	**----**	**----**

Surrogate Control Limits

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

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

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

QUALITY CONTROL REPORT

Work Order	: **EM2210112**	Page	: 1 of 27
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	: 31-May-2022
Order number	: ----	Date Analysis Commenced	: 31-May-2022
C-O-C number	: 20220531044306-ALS-52	Issue Date	: 07-Jun-2022
Sampler	: Martha, Will		
Site	: 20220531044306-ALS-52		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 18		
No. of samples analysed	: 18		

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*
Andrew Lu	VOC Section Supervisor	Melbourne Inorganics, Springvale, VIC
Dilani Fernando	Laboratory Coordinator	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 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: 4375469)									
EM2209872-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	39	41	5.2	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	34	25	29.5	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	15	13	11.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	13	12	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	22	15	35.7	No Limit
EM2210107-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	11	18	53.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	11	52.9	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	8	11	27.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	23	35	40.7	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	27	6	125	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	50	65	25.7	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4375472)									
EM2210196-006	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4375472) - continued									
EM2210196-006	Anonymous	EG005T: Chromium	7440-47-3	2	mg/kg	29	27	8.2	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	12	12	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	10	10	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	14	19.6	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	30	26	12.3	No Limit
EM2210112-007	SX_OB_20220530_20_08_ 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	96	92	3.4	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	150	143	5.1	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	48	54	11.0	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	56	50	11.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	95	79	18.4	0% - 50%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4378326)									
EM2210112-001	SX_OB_20220530_07_48_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	0.0	0% - 20%
EM2210307-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.5	7.4	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4376877)									
EM2210112-001	SX_OB_20220530_07_48_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	29.5	28.1	4.9	0% - 20%
EM2210307-002	Anonymous	EA055: Moisture Content	----	0.1	%	32.7	30.9	5.6	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4375470)									
EM2209872-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210107-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4375471)									
EM2210196-006	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2210112-007	SX_OB_20220530_20_08_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4376616)									
EM2210112-001	SX_OB_20220530_07_48_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	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 (%)*
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4376616) - continued									
EM2210178-001	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: 4379209)									
EM2210066-008	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2209698-003	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	3	2	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4379211)									
EM2210216-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2210157-002	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4376626)									
EM2210112-001	SX_OB_20220530_07_48_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	160	160	0.0	No Limit
EM2210307-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	150	170	14.1	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4375441)									
EM2209698-003	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	0.1	0.1	0.0	No Limit
EM2210112-005	SX_OB_20220530_15_49_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: 4371317)									
EM2210112-001	SX_OB_20220530_07_48_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: 4371317)									
EM2210112-001	SX_OB_20220530_07_48_SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4371317)									
EM2210112-001	SX_OB_20220530_07_48_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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP074I: Volatile Halogenated Compounds (QC Lot: 4371317) - continued									
EM2210112-001	SX_OB_20220530_07_48_SS_Primary_ALS	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: 4375443)									
EM2209698-003	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.06	<0.06	0.0	No Limit
		EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EM2210112-005	SX_OB_20220530_15_49_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: 4375443)									
EM2209698-003	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit

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: 4375443) - continued									
EM2209698-003	Anonymous	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
EM2210112-005	SX_OB_20220530_15_49_ 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: 4375443)									
EM2209698-003	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	2.2	0.6	108	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	0.7	<0.5	29.5	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	4.8	1.6	101	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	4.9	1.7	98.6	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	2.4	1.0	82.6	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	2.4	0.9	86.2	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	2.8	1.2	79.5	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	1.6	0.7	73.6	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	2.0	0.9	72.8	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	4.4	1.9	76.5	No Limit
EM2210112-005	SX_OB_20220530_15_49_ SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4375443) - continued									
EM2210112-005	SX_OB_20220530_15_49_SS_Primary_ALS	EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 4375443)									
EM2209698-003	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EM2210112-005	SX_OB_20220530_15_49_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: 4375443) - continued									
EM2210112-005	SX_OB_20220530_15_49_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: 4371317)									
EM2210112-001	SX_OB_20220530_07_48_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4375442)									
EM2209698-003	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	210	180	14.4	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	190	340	59.4	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	400	520	26.1	0% - 50%
EM2210112-005	SX_OB_20220530_15_49_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: 4371317)									
EM2210112-001	SX_OB_20220530_07_48_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: 4375442)									
EM2209698-003	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	360	440	19.7	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	120	380	101	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	480	# 820	52.3	0% - 50%
EM2210112-005	SX_OB_20220530_15_49_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: 4377673)									

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: 4377673) - continued									
EM2209709-005	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
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4377673)									
EM2209709-005	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
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4377673)									
EM2209709-005	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	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: 4377673) - continued									
EM2209709-005	Anonymous	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
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4377673)									
EM2209709-005	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
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4377673) - continued									
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	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: 4377673)									
EM2209709-005	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
EM2210112-009	SX_OB_20220531_04_08_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4381307)									
EM2209858-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.02	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
EM2210307-006	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4381323)									
EM2209858-007	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2210307-016	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

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: 4381307)									
EM2209858-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2210307-006	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4381323)									
EM2209858-007	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<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
EM2210307-016	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit

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: 4381323) - continued									
EM2210307-016	Anonymous	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: 4381307)									
EM2209858-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2210307-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381323)									
EM2209858-007	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

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: 4381323) - continued									
EM2209858-007	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2210307-016	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4381307)									
EM2209858-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2210307-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		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: 4381323)									
EM2209858-007	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

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: 4381323) - continued									
EM2209858-007	Anonymous	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2210307-016	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4381307)									
EM2209858-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.03	40.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.01	0.02	66.7	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	0.03	40.0	No Limit
EM2210307-006	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4381323)									
EM2209858-007	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EM2210307-016	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.05	<0.05	0.0	No Limit

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: 4375469)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	98.8	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	59.9	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	98.3	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	96.1	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	94.6	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	84.7	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.1	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	75.7	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	82.5	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.3	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4375472)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	99.5	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	63.9	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	99.6	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	95.8	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	94.7	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	78.4	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.6	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	76.1	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	73.0	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	76.4	70.0	130
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4376791)								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4378326)								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101
				----	7 pH Unit	100	99.3	101
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4375470)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	126	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4375471)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	124	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4376616)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	77.9	70.0	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
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4379209)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	82.4	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4379211)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	95.4	70.0	130
EK040T: Fluoride Total (QCLot: 4376626)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	82.9	75.2	110
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4375441)								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	119	67.4	136
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4371317)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	96.2	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	96.6	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	91.9	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	90.4	65.2	112
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	93.5	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	93.2	68.4	110
EP074H: Naphthalene (QCLot: 4371317)								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	92.0	72.3	114
EP074I: Volatile Halogenated Compounds (QCLot: 4371317)								
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	109	47.0	138
EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	97.9	57.6	125
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	100	72.3	115
EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	95.7	60.5	122
EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	96.3	70.3	112
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	97.9	66.6	115
EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	96.4	64.4	122
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	91.7	58.4	127
EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	114	72.9	114
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	95.6	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	89.4	60.0	119
EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	94.2	71.8	116
EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	101	66.1	116
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	91.4	39.8	128
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	96.6	70.3	113
EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	92.2	62.6	113
EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	95.0	70.8	110
EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	84.0	48.4	120
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4375443)								

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: 4375443) - continued								
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	103	74.5	126
EP075-EM: 2.4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	109	72.7	126
EP075-EM: 2.6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	111	73.5	132
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	111	72.8	128
EP075-EM: 2.4.5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	109	73.3	134
EP075-EM: 2.4.6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	106	72.4	128
EP075-EM: 2.3.5.6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	99.8	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	103	71.9	128
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	90.2	54.4	135
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4375443)								
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	108	71.5	130
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	111	73.4	129
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	108	74.3	129
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	107	70.9	133
EP075-EM: 2.4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	112	71.8	132
EP075-EM: 2.4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	75.3	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	101	65.3	134
EP075-EM: 2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	82.8	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	84.0	62.0	128
EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	66.5	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4375443)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	110	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	111	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	110	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	113	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	112	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	112	78.4	127
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	112	75.3	132
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	116	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	116	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	116	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	117	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	115	65.1	130
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	112	72.1	134
EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	112	72.9	135
EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	110	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4375443)								

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: 4375443) - continued								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	104	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	105	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	106	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	106	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	109	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	107	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	106	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	105	73.6	130
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	109	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	106	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	101	69.4	134
EP075-EM: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	109	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	109	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	102	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	108	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	113	71.4	135
EP075-EM: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	114	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	110	70.2	135
EP075-EM: 4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	108	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	110	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4371317)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	91.3	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4375442)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	115	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	110	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	101	81.8	121
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	108	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4371317)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	88.7	59.9	119
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4375442)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	116	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	112	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	110	73.3	136
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	113	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377673)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	93.6	72.0	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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377673) - continued								
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	104	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	80.2	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	108	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	119	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4377673)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	102	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	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	107	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.7	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4377673)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.4	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	116	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.8	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	121	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	113	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4377673)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	107	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	122	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	119	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	82.6	70.0	130
EP231P: PFAS Sums (QCLot: 4377673)								
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	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381307)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	98.0	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	95.1	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	103	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381323)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	101	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	96.5	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	98.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.5	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381307)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	96.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.1	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	109	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	90.3	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.5	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	107	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381323)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	103	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	102	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.1	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.7	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381307)								

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: 4381307) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.9	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	119	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	88.5	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	88.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	96.1	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381323)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.3	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	96.6	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	94.5	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381307)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	100	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	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	99.0	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	92.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381323)								
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	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	122	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	100	70.0	130
EP231P: PFAS Sums (QCLot: 4381307)								
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: 4381323)								

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: 4381323) - continued								
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: 4375469)							
EM2209872-004	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	89.8	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	87.6	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	95.9	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	94.2	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	89.8	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	86.8	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	# 78.9	80.0	120
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4375472)							
EM2210112-008	SX_OB_20220531_00_01_SS_Primary_ALS	EG005T: Cadmium	7440-43-9	50 mg/kg	87.6	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	80.0	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	97.7	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	88.8	80.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	# 78.8	80.0	120
EM2210112-008	SX_OB_20220531_00_01_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	123	78.0	124
		EG005T: Nickel	7440-02-0	50 mg/kg	103	78.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4375470)							
EM2209872-004	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	97.8	76.0	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4375471)							
EM2210112-008	SX_OB_20220531_00_01_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	97.2	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4376616)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	80.4	58.0	114
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	97.8	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4379209)							
EM2209698-004	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	93.6	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4379211)							
EM2210157-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	92.4	70.0	130
EK040T: Fluoride Total (QCLot: 4376626)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	70.9	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4375441)							
EM2209698-004	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	124	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4371317)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	77.9	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	83.4	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4371317)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EP074-UT: 1.1-Dichloroethene	75-35-4	2 mg/kg	65.3	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	73.2	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	76.2	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4375443)							
EM2209858-002	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	90.6	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	95.4	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	43.9	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4375443)							
EM2209858-002	Anonymous	EP075-EM: Phenol	108-95-2	3 mg/kg	91.8	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	69.2	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4375443)							
EM2209858-002	Anonymous	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	89.6	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	92.1	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4371317)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	70.8	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4375442)							
EM2209858-001	Anonymous	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	112	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	111	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	102	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	108	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4371317)							
EM2210112-002	SX_OB_20220530_07_49_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	67.5	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4375442)							
EM2209858-001	Anonymous	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	114	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	113	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	115	65.3	139

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4375442) - continued							
EM2209858-001	Anonymous	EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	113	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377673)							
EM2209709-012	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	97.1	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	93.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	88.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	114	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	94.3	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	102	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4377673)							
EM2209709-012	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	96.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	85.9	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	108	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	96.9	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	102	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	94.8	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	94.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	104	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	94.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	111	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4377673)							
EM2209709-012	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	93.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	88.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	104	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	97.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	89.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	114	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	114	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4377673)							
EM2209709-012	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	114	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	114	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	102	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381307)							
EM2209858-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	109	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	95.1	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	99.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	110	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	99.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381323)							
EM2209858-008	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	96.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	95.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	110	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	101	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	90.1	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	76.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381307)							
EM2209858-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	128	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	99.3	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	105	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	102	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	93.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.6	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	104	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381323)							
EM2209858-008	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	77.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	93.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	97.5	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	101	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	88.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	84.5	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	78.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	76.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	74.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381307)							

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: 4381307) - continued							
EM2209858-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	101	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	105	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	106	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	102	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	100	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381323)							
EM2209858-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	96.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	87.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	80.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	83.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	75.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	73.7	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381307)							
EM2209858-002	Anonymous	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	119	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	113	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	98.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381323)							
EM2209858-008	Anonymous	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	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	94.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 60.6	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2210112**	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	: 31-May-2022
Site	: 20220531044306-ALS-52	Issue Date	: 07-Jun-2022
Sampler	: Martha, Will	No. of samples received	: 18
Order number	: ----	No. of samples analysed	: 18

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO Method Blank value outliers occur.**
- **NO 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							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2	EM2209698--003	Anonymous	**>C10 - C40 Fraction (sum)**	----	52.3 %	0% - 50%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							
EG005(ED093)T: Total Metals by ICP-AES	EM2209872--004	Anonymous	**Zinc**	7440-66-6	78.9 %	80.0-120%	**Recovery less than lower data quality objective**
EG005(ED093)T: Total Metals by ICP-AES	EM2210112--008	SX_OB_20220531_00_01_SS	**Zinc**	7440-66-6	78.8 %	80.0-120%	**Recovery less than lower data quality objective**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2209858--008	Anonymous	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	60.6 %	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								
Miscellaneous Plastic Bucket (EA001)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**30-May-2022**	**03-Jun-2022**	06-Jun-2022	✓	**03-Jun-2022**	03-Jun-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS								
Miscellaneous Plastic Bucket (EA001)								
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	07-Jun-2022	✓	**03-Jun-2022**	03-Jun-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Miscellaneous Plastic Bucket (EA055)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**----**	----	----	**02-Jun-2022**	13-Jun-2022	✓
Miscellaneous Plastic Bucket (EA055)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**----**	----	----	**02-Jun-2022**	14-Jun-2022	✓
EG005(ED093)T: Total Metals by ICP-AES							
Miscellaneous Plastic Bucket (EG005T)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**04-Jun-2022**	26-Nov-2022	✓
Miscellaneous Plastic Bucket (EG005T)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**04-Jun-2022**	27-Nov-2022	✓
EG035T: Total Recoverable Mercury by FIMS							
Miscellaneous Plastic Bucket (EG035T)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	27-Jun-2022	✓	**04-Jun-2022**	27-Jun-2022	✓
Miscellaneous Plastic Bucket (EG035T)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	28-Jun-2022	✓	**04-Jun-2022**	28-Jun-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Miscellaneous Plastic Bucket (EG048G)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	27-Jun-2022	✓	**04-Jun-2022**	10-Jun-2022	✓
Miscellaneous Plastic Bucket (EG048G)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	28-Jun-2022	✓	**04-Jun-2022**	10-Jun-2022	✓
EK026SF: Total CN by Segmented Flow Analyser							
Miscellaneous Plastic Bucket (EK026SF)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**06-Jun-2022**	17-Jun-2022	✓
Miscellaneous Plastic Bucket (EK026SF)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**06-Jun-2022**	17-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
EK040T: Fluoride Total							
Miscellaneous Plastic Bucket (EK040T)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	27-Jun-2022	✓	**07-Jun-2022**	27-Jun-2022	✓
Miscellaneous Plastic Bucket (EK040T)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	28-Jun-2022	✓	**07-Jun-2022**	28-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_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**02-Jun-2022**	26-Nov-2022	✓	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**02-Jun-2022**	27-Nov-2022	✓	**----**	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-Dla-P)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**02-Jun-2022**	26-Nov-2022	✓	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-Dla-P)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**02-Jun-2022**	27-Nov-2022	✓	**----**	----	----
EP066: Polychlorinated Biphenyls (PCB)							
Miscellaneous Plastic Bucket (EP066-EM)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP066-EM)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**31-May-2022**	06-Jun-2022	✓	**01-Jun-2022**	06-Jun-2022	✓
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**31-May-2022**	07-Jun-2022	✓	**01-Jun-2022**	07-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
EP074H: Naphthalene							
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**31-May-2022**	06-Jun-2022	✓	**01-Jun-2022**	06-Jun-2022	✓
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**31-May-2022**	07-Jun-2022	✓	**01-Jun-2022**	07-Jun-2022	✓
EP074I: Volatile Halogenated Compounds							
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**31-May-2022**	06-Jun-2022	✓	**01-Jun-2022**	06-Jun-2022	✓
Miscellaneous Plastic Bucket (EP074-UT)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**31-May-2022**	07-Jun-2022	✓	**01-Jun-2022**	07-Jun-2022	✓
EP075A: Phenolic Compounds (Halogenated)							
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)							
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons							
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP075-EM)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-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
EP075l: Organochlorine Pesticides							
Miscellaneous Plastic Bucket (EP075-EM) SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP075-EM) SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP080/071: Total Petroleum Hydrocarbons							
Miscellaneous Plastic Bucket (EP071-EM) SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP074-UT) SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**31-May-2022**	06-Jun-2022	✓	**01-Jun-2022**	06-Jun-2022	✓
Miscellaneous Plastic Bucket (EP071-EM) SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP074-UT) SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**31-May-2022**	07-Jun-2022	✓	**01-Jun-2022**	07-Jun-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Miscellaneous Plastic Bucket (EP071-EM) SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	13-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP074-UT) SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**31-May-2022**	06-Jun-2022	✓	**01-Jun-2022**	06-Jun-2022	✓
Miscellaneous Plastic Bucket (EP071-EM) SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	14-Jun-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP074-UT) SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**31-May-2022**	07-Jun-2022	✓	**01-Jun-2022**	07-Jun-2022	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231P: PFAS Sums							
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220530_07_48_SS_Primary_ALS, SX_OB_20220530_07_49_SS_Duplicate_ALS, SX_OB_20220530_12_45_SS_Primary_ALS, SX_OB_20220530_12_55_SS_Primary_ALS, SX_OB_20220530_15_49_SS_Primary_ALS, SX_OB_20220530_16_05_SS_Triplicate_ALS, SX_OB_20220530_20_08_SS_Primary_ALS	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
Miscellaneous Plastic Bucket (EP231X)							
SX_OB_20220531_00_01_SS_Primary_ALS, SX_OB_20220531_04_08_SS_Primary_ALS	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓

Matrix: **WATER**

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

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS,	SX_OB_20220531_00_01_SS_Primary_ALS,							
SX_OB_20220531_04_08_SS_Primary_ALS,	SX_OB_20220530_07_48_SS_Primary_ALS,							
SX_OB_20220530_07_49_SS_Duplicate_ALS,	SX_OB_20220530_12_45_SS_Primary_ALS,							
SX_OB_20220530_12_55_SS_Primary_ALS,	SX_OB_20220530_15_49_SS_Primary_ALS,							
SX_OB_20220530_16_05_SS_Triplicate_ALS,	SX_OB_20220530_20_08_SS_Primary_ALS,							
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_SS_Primary_ALS							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS,	SX_OB_20220531_00_01_SS_Primary_ALS,							
SX_OB_20220531_04_08_SS_Primary_ALS,	SX_OB_20220530_07_48_SS_Primary_ALS,							
SX_OB_20220530_07_49_SS_Duplicate_ALS,	SX_OB_20220530_12_45_SS_Primary_ALS,							
SX_OB_20220530_12_55_SS_Primary_ALS,	SX_OB_20220530_15_49_SS_Primary_ALS,							
SX_OB_20220530_16_05_SS_Triplicate_ALS,	SX_OB_20220530_20_08_SS_Primary_ALS,							
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_SS_Primary_ALS							
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS,	SX_OB_20220531_00_01_SS_Primary_ALS,							
SX_OB_20220531_04_08_SS_Primary_ALS,	SX_OB_20220530_07_48_SS_Primary_ALS,							
SX_OB_20220530_07_49_SS_Duplicate_ALS,	SX_OB_20220530_12_45_SS_Primary_ALS,							
SX_OB_20220530_12_55_SS_Primary_ALS,	SX_OB_20220530_15_49_SS_Primary_ALS,							
SX_OB_20220530_16_05_SS_Triplicate_ALS,	SX_OB_20220530_20_08_SS_Primary_ALS,							
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_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)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS,	SX_OB_20220531_00_01_SS_Primary_ALS,							
SX_OB_20220531_04_08_SS_Primary_ALS,	SX_OB_20220530_07_48_SS_Primary_ALS,							
SX_OB_20220530_07_49_SS_Duplicate_ALS,	SX_OB_20220530_12_45_SS_Primary_ALS,							
SX_OB_20220530_12_55_SS_Primary_ALS,	SX_OB_20220530_15_49_SS_Primary_ALS,							
SX_OB_20220530_16_05_SS_Triplicate_ALS,	SX_OB_20220530_20_08_SS_Primary_ALS,							
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_SS_Primary_ALS							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
SX_OB_20220530_07_48_SS_Primary_ALS,	SX_OB_20220530_07_49_SS_Duplicate_ALS,	**02-Jun-2022**	**06-Jun-2022**	29-Nov-2022	✓	**06-Jun-2022**	29-Nov-2022	✓
SX_OB_20220530_12_45_SS_Primary_ALS,	SX_OB_20220530_12_55_SS_Primary_ALS,							
SX_OB_20220530_15_49_SS_Primary_ALS,	SX_OB_20220530_16_05_SS_Triplicate_ALS,							
SX_OB_20220530_20_08_SS_Primary_ALS,	SX_OB_20220531_00_01_SS_Primary_ALS,							
SX_OB_20220531_04_08_SS_Primary_ALS,	SX_OB_20220530_07_48_SS_Primary_ALS,							
SX_OB_20220530_07_49_SS_Duplicate_ALS,	SX_OB_20220530_12_45_SS_Primary_ALS,							
SX_OB_20220530_12_55_SS_Primary_ALS,	SX_OB_20220530_15_49_SS_Primary_ALS,							
SX_OB_20220530_16_05_SS_Triplicate_ALS,	SX_OB_20220530_20_08_SS_Primary_ALS,							
SX_OB_20220531_00_01_SS_Primary_ALS,	SX_OB_20220531_04_08_SS_Primary_ALS							

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	3	16	**18.75**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	31	**12.90**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	16	**12.50**	**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	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	**6.45**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	16	**6.25**	**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	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	16	**6.25**	**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	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	**6.45**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	16	**6.25**	**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	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	16	**6.25**	**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	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	31	**6.45**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	40	**7.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	16	**6.25**	**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	4	38	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**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.

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.
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.

Preparation Methods	Method	Matrix	Method Descriptions
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.